

9 HN 385.5
(in box)



OFFICE OF POPULATION CENSUSES AND SURVEYS

SOCIAL SURVEY DIVISION

AN EVALUATION OF EARLY C.A.S. COURSES

by

LOUIS MOSS

and

JOHN BYNNER

*An enquiry carried out for the Centre for Administrative
Studies, Civil Service Department*



S428

MAY 1977

SOUTHAMPTON UNIVERSITY LIBRARY

Date of Issue

SOUTHAMPTON
UNIVERSITY LIBRARY

BOOK NUMBER 80-125932

CLASS MARK 9 HN385.5
(in box)

80125932



TELEPEN



OFFICE OF POPULATION CENSUSES AND SURVEYS

SOCIAL SURVEY DIVISION

AN EVALUATION OF EARLY C.A.S. COURSES

by

LOUIS MOSS

and

JOHN BYNNER

*An enquiry carried out for the Centre for Administrative
Studies, Civil Service Department*

CONTENTS

	Page
Foreword by Civil Service College	vii
SUMMARY AND CONCLUSIONS	xi
1.0 INTRODUCTION	1
1 Purpose and method	1
2 Design of the postal questionnaire	2
3 Comparisons with other groups	3
4 Response and analysis	3
5 The conclusions	4
2.0 CAS COURSE STUDENTS	6
1 Civil Service work experience	6
2 Subject content of work	9
3 Desire for additional knowledge	11
4 How did the course relate to other sources of knowledge	12
5 Most important source of knowledge	14
6 Conclusion	15
3.0 HOW USEFUL WERE THE CAS COURSES	16
1 Introduction	16
2 The views of course members	16
3 The views of superior officers	18
4 The views of the control group	19
5 Was the course of any general use?	20
6 Course members 'understanding' of the course	20
7 Relationship between utility of subjects and desire for more course time on them	22
8 Assessments from people whose main source of information was CAS course	23

	Page
4.0 THE COURSE AS PERCEIVED BY STUDENTS	24
1 Factor analysis of students' assessments	24
2 Direct Usefulness	25
1. Relation of the working environment to usefulness of subjects	26
3 Indirect Usefulness Re-examined	29
4 Understanding Re-examined	30
5 'Should more time have been spent' Re-examined	31
5.0 ATTITUDES TO CIVIL SERVICE TRAINING COURSES	35
1 Introduction	35
2 Opinions about training	35
1. Opinions about the CAS course	36
2. Opinions about the receptiveness of the Civil Service to CAS training	37
3. Opinions about the value of management training for administrators	37
3 General Attitudes	39
1. Dissatisfaction with CAS training	40
2. Criticism of the Civil Service	42
3. Denial of the need for management training in the Civil Service	43
4 Other characteristics of people with negative attitudes to training	46
6.0 COURSE MEMBERS OPINIONS OF THE COURSE	49
1 Benefits gained from the course	49
2 Use of Course notes	50
1. CAS publications	50
3 General comments on the Course	52
4 Improvements wanted in the Course	54
1. Quality of teaching	56
2. Teaching methods	57

APPENDICES	
	Page
A PROCEDURE	59
B TECHNICAL DETAILS AND RESULTS OF FACTOR ANALYSES	66
C STATISTICAL SIGNIFICANCE OF DIFFERENCES BETWEEN PERCENTAGES	74
D QUESTIONNAIRES	76

TABLES

	Page
Table 1 Career since CAS course - responsibilities	7
Table 2 Number of posts held, age and year of entry into AP grade	8
Table 3 Qualification	8
Table 4 Subject of qualification	9
Table 5 Career since CAS course group - subject content of work	10
Table 6 Desire for additional knowledge	11
Table 7 Sources of knowledge of CAS course subjects	13
Table 8 The most important source of knowledge of course topic	14
Table 9 How useful are CAS courses	17a
Table 10 Average responses to group topics	18
Table 11 Indirect utility of knowledge	21a
Table 12 Understanding the CAS course and desire for more time to be spent on Course Topics	22a
Table 13 Ratings of subject matter by all course members and those members whose <u>main</u> source of information was CAS course	23
Table 14 Direct usefulness of course subjects analysed by superior officers' judgements on usefulness to course member	27
Table 15 Direct usefulness of course subjects analysed by subject content of work over all jobs	28
Table 16 Desire for more time to be spent on course subjects analysed by subject content of work over all jobs	33
Table 17 Direct usefulness of course subjects analysed by desire for more time to be spent on them	34
Table 18 Usefulness of course subjects analysed by dissatisfaction with CAS training	42
Table 19 Usefulness of course subjects analysed by denial of the need for management training	45
Table 20 Attitudes to Civil Service Training analysed by Civil Service work experience	46

	Page
Table 21 Attitudes to Civil Service Training analysed by subject content of work over all jobs	47
Table 22 Attitudes to Civil Service Training analysed by attitude to CAS course notes	48
Table 23 Benefits from the CAS course	49
Table 24 Use of CAS course notes	50
Table 25 Use of CAS publications	51
Table 26 Other comments on Training or on the CAS course	53
Table 27 Improvements desired in the course	55
Table 28 Superior Officers views of the success of the course	58
Table A1 Present location of Total Entry into the Assistant Principal Grade between April 1958 and December 1959	61
Table A2 Response to the Survey	62
Table A3 Age of informant	63
Table A4 Sex of informant	6
Table A5 Present grade	63
Table A6 Length of time superior officer has known course member	64
Table A7 Year of entry into AP and present grade	64
Table A8 Courses attended since leaving school except the CAS 20 week course and any courses leading to qualifications	65
Table A9 Departments analysed by subject content of present job	65a
Table B1 Factor Analysis of subject matter of CAS course (Question 6)	67a
Table B2 Factor Analysis of attitudes to training (Question 9)	68a

DIAGRAMS

		Page
Figure 1	Ratings of course topics - by course members whose main source of information was CAS course	23a
Figure 2	Direct usefulness of CAS subjects to course members - scale scores	26
Figure 3	Indirect usefulness of CAS subjects to course members - scale scores	29
Figure 4	Understanding at end of course of CAS course subjects - scale scores	30
Figure 5	Desire for more time for CAS course subjects - scale scores	31
Figure 6	Opinions about the CAS course	36a
Figure 7	Opinions about the receptiveness of the Civil Service to CAS training	36a
Figure 8	Opinions about the value of Management Training for Administrators	37a
Figure 9	Dissatisfaction with CAS training - scale scores	40
Figure 10	Criticism of the Civil Service - scale scores	43
Figure 11	Denial of the need for management training - scale scores	44

AN EVALUATION OF THE RESULTS OF THE TRAINING GIVEN BY THE CENTRE FOR
ADMINISTRATIVE STUDIES TO ASSISTANT PRINCIPALS 1963-66

FOREWORD BY THE CIVIL SERVICE COLLEGE

This foreword explains the background to this initial survey to try to evaluate results of the training course for Assistant Principals run by the Centre for Administrative Studies (CAS) in the 2 years after its establishment in October 1963.

2 The Centre was established by the Treasury with the task of giving training in economics, statistics, new management techniques, Government and business operations to Assistant Principals in their third year of Service. The opening courses were run as a basic 14 week course for all Assistant Principals, followed for those Assistant Principals coming from "Economic Departments" by a further 7 week course on Economic Problems of Government. After experience of the first two courses, this distinction in training disappeared and from October 1964 all Assistant Principals were given a common 20 week course of which the main subjects and objectives were:

- a Economics - to teach the main economic concepts and theories likely to be of use to administrators in Government Departments and the terminology used by economists.
- b Statistics - to show generally the use and limitations of statistics and to teach the main concepts to secure profitable use of statistics.
- c Administrative Techniques - to introduce course members to such aids to administration as costing, computers, and operational research including linear programming, games theory, PERT and critical path analysis.
- d Industry - to give the basic facts on the structure of British industry and to discuss some of the main problems arising in such fields as relations between Government Departments and the private sector of industry, between Departments and nationalised industries, in industrial relations and in such fields as monopolies, location of industry and distribution.

3 From the very first course the need for thorough assessment of the training was recognised. The opinions of course members as to the value and relevance of the training were therefore systematically sounded course by course and, where appropriate, amendments were made to the content and handling of subsequent courses. The result has been a process of adaptation and improvement in response to experience of the courses from 1963 to the present day. The last of the 20 week courses - the twelfth in the series - ended in July 1968, shortly after publication of the Fulton Report; and Assistant Principals are now given up to a full year of training embracing a wider range of subject matter, on lines suggested by the Fulton Committee. The current training courses for Assistant Principals - which are now given by the Civil Service College into which the CAS was incorporated in June 1970 - are therefore much changed and developed from the early courses pioneered by the CAS. The current pattern of training is, indeed, itself under review in the light of decisions taken on the future recruitment and career development of administrative entrants to the Service.

Evaluation of the training

4 When the CAS was established it was recognised that the assessment of courses given by their members at the end of the course, while helpful in improving the conduct of future courses, would not throw any light on the value of the training in assisting course members to work more efficiently and effectively. It was therefore early decided that, to the immediate assessments of each course, should be added in due time an effort to evaluate the results of the training in terms of the subsequent use made by course members of the skills and knowledge acquired on the course. It was thought that this attempt at evaluation should be made about 5 years after the initial courses, by which time the course members would be able to look back on their training from experience in a variety of jobs, including posts of greater responsibility. Not only would they by then have had further experience in Assistant Principal posts (often in Ministerial Private Offices), but they would have added to this 2 or 3 years experience in a Principal post. When the time came in 1969 to consider undertaking such an evaluation it was also thought that the results would be useful in considering the training to be given at this level and at this stage of career to young administrators in the future.

5 The Government Social Survey were accordingly invited by the CAS in 1969 to conduct this initial survey. The primary objectives of the survey were to seek information which would help in assessing the extent to which course members:

- a had found the main concepts and techniques taught on the course of direct or indirect application to their subsequent work;
- b had found that the course failed to give an understanding of particular concepts or techniques which was adequate to enable course members to use them in their work;
- c had met specific problems in the past two years in dealing with which they would have found it useful to have had training of a kind that the course did not provide;
- d thought that there were elements in their subsequent working situation which did not allow full use to be made of the knowledge and skills obtained on the course.

The constraints on the design of the survey referred to in the Introduction to it meant that an appropriately detailed consideration could not be given to d. But at some points in the report the effect of the working situation on the responses of the informants has been brought out.

The nature and scope of the survey

6 The survey proceeded on the basis of a questionnaire designed to elicit the opinions of 98 of the members of the first five courses run at the CAS from October 1963 to February 1966. Opinions were also sought from a control group of Assistant Principals who did not take the CAS course and from the Supervising officers of the course members now reponding. This is therefore fundamentally a survey of opinions and, moreover, of opinions only on selected aspects of the early courses, in that the primary aim of the survey has been to seek views about the direct relevance and applications of the training given.

7 The fact that only a limited range of questions about the responses to these courses was investigated was not meant to imply that these are the sole or primary criteria for judging the success of management training. Clearly the courses were doing much more than training

the course members in specific techniques for direct application in subsequent administrative work, but placing a value on these wider effects is a task which, although it may be decided to tackle it later with the experience of this survey, was not an objective of this initial survey and could certainly not have been tackled with any prospect of success in the time available.

8 The survey should not therefore be regarded as an "evaluation" of the training in the sense of assessing its total value. That would be an exceedingly difficult and complex task and could not be carried out merely by the questionnaire method. It would, for instance, necessitate an attempt to isolate the effect of the training from other factors affecting subsequent work performance, whether these are personal - the response of individuals with different intellectual backgrounds to a variety of subsequent work situations - or other aspects of the system of personnel management of which training is only one part - for example, how far the organisation deliberately seeks to exploit the knowledge and skills obtained in training, as well as providing opportunities for the development in his work of the natural abilities of the individual. These are questions which it has not been possible to pursue in this survey and there is as yet no agreed groundwork for such total evaluation of the practical effects of management training. In order to take account of related experience in this field, however, the opportunity was taken to consult Dr R Rapoport, who was currently attempting to evaluate the General Management course given by the Administrative Staff College at Henley, on the design of the survey questionnaire.

9 The analysis provided by this survey is being used to consider how to develop evaluation of the results of management training at the Civil Service College.

SUMMARY AND CONCLUSIONS

1 This is a first attempt at systematic evaluation of the use made, in subsequent work, of the training given on the first five management training courses run by the Centre for Administrative studies. The Social Survey was asked to do this some years after the course and to examine primarily the extent to which particular concepts and techniques covered by the course had been applied in subsequent work. The results were wanted rather quickly in order to assist in shaping future courses. The techniques adopted in the evaluation took these requirements into account so far as possible but, particularly because of the time constraint, the survey has not been able to deal with many of the factors which affect the extent to which training is applied in dealing with day to day work problems.

2 The numbers involved are small, 98 course members, and although we have tried to summarise and condense in order to extract as much as we could from the data many of the results discussed must be regarded as tentative or suggestive rather than conclusive.

3 CAS Course Students

It seems clear from our results that in the absence of the CAS course knowledge of its subject matter would in the main have been available to many course members only casually, if at all. Left to themselves it seems apparent that many would try to cope without the aid of available modern techniques. If the subject matter of the course was necessary for administrative or managerial efficiency some organised method of familiarising Civil Servants with it was essential.

4 How useful was the course

Although the course was supposed to introduce students to the topics covered some of them would have studied some of the subject matter in much more detail at University or in other training courses or would have come into contact with it during general reading. These other sources would have complicated any attempt to evaluate a course which took place so long ago and it was necessary therefore to sieve out those whose main source of knowledge was the course and to concentrate our main analysis on them.

But as a preliminary to this we asked all course members how directly useful knowledge of the course topics had been to them in the five years working experience since the course. For the majority (50 - 70% according to topic) the subject matter seemed of 'no use' or 'hardly any use'. More course members acknowledged that the course had been indirectly useful in helping them to discuss course topics more knowledgeably or by improving their understanding of other relevant literature. Indeed, the more general the context and the further away from direct application the higher the proportion responding positively.

It is perhaps this fact which explains why quite high proportions claimed that their understanding of the topics discussed was 'very good' or 'fairly good' at the end of the course. But apparently it was a level of understanding which had not enabled them or stimulated them to apply the information gained - granted the opportunity to do so and granted they were capable of recognising the opportunity - nor had very many been sufficiently interested to want to know more. Most students did not feel that more time should have been spent on any topics. And indeed our first results seemed to indicate that the more likely they were to consider the course topics useful the less likely they were to want more time spent on it! This paradox is partly explained by the finding that students whose main source of information was not the course were more likely to think it 'useful' than those who mainly learnt about the subject from the course. Clearly if a university course had been the main source of information a Civil Service course, unless it had been so conducted as to stimulate the imagination and direct students towards profitable applications, would hardly seem to provide a considerable increase in knowledge or interest. There are, too, other reasons which help to explain this result which are discussed in the report.

We are left with the question - why was the course not felt to be more 'directly useful'?

5 The impact of the course reconsidered

The next stage of analysis concentrated on those course members for whom the course provided the main source of information on the topics discussed. We had presented course members with the details of the course, item by item as displayed in the prospectus. But it seemed to us that this rather formal groupwork might not be the way students

thought of the course after such a lapse of time. Perhaps they grouped the items rather differently - putting them together in one set when considering their usefulness but into different sets when considering how well they understood them or whether more time should have been spent on them. With the use of factor analysis* we derived a new grouping of the course topics along these lines. And, furthermore, we developed a method of scoring response to our questions which enabled us to express them in quantitative terms. By these means we were able to take the course topics as students now perceived them, quantify their reactions and in this way compare the response to different parts of the course of students with different background and experience.

Micro-Economics and Industry were perceived as one group of items when students' considered 'usefulness'. It is a group which might enable course members to feel closer to real life problems and students were less likely to regard no item as directly useful than was the case for any other group of items. Statistics was perceived as one group of items. Students were more likely to regard no item as directly useful than for any other subject group. Macro-Economics and Administrative Techniques came somewhere in between these other two groups. Statistics came off worse by far. Unless taught in relation to matters which the student is actually handling, it may appear somewhat remote and many course members, may not have had many opportunities to apply what they had learnt. In general students who had worked more in the social sphere were least likely to find the course topics directly useful. Those who had worked more in the economic sphere were most likely to find them directly useful.

When student's 'understanding' of the course was considered the topic items grouped rather differently. All the Micro and Macro Economics items were put in one group. A fairly high proportion of course members thought they had a good understanding of what they were taught for the majority of items in this group and only 12% said that they had not understood one item. In contrast nearly 49% of

* How the factor analysis was conducted is explained in Appendix B. Broadly, factor analysis is a statistical technique for linking separate items into distinct groups where the items in any one group are more closely related to each other than with the items in any other group. The technique is useful for ordering sets of responses and thus for reviewing and making more comprehensible quite large amounts of material.

students said they had not understood one item in the statistics group. This no doubt helps to explain why Statistics came out so badly when untility was considered. But 36% thought they had good understanding of 3 or 4 out of the four Statistics items. It seems that for Economics, Statistics and to some extent Administrative Techniques as well students fell into roughly two broad groups one of which had understood much of the course and another which had not coped with it at all well. This raises questions about the detailed content and handling of courses. Should more regard be paid to previous education and work history in allocating students to courses? Should courses be more adapted to probable levels of understanding when semi-technical topics are to be taught?

When students views on 'more time' for particular topics are considered the topic items form very different groups from those which had emerged previously. Economics items fell into three groups: Micro-Economics I which was rather more theoretical; Micro-Economics II which may have seemed more practical and Macro-Economics. 70% of students wanted no more time on any item of Micro-Economics I but the proportion fell to 37% and 29% wanting no more time on Micro-Economics II and Macro-Economics. Clearly the more theoretical group of items had not seemed very profitable. Statistics and Administrative Techniques fell in between the two extremes of the Economics items.

Once again we found that for some of the item groups: Micro-Economics II, Statistics and Administrative Techniques students tended to fall into two broad groups with a rather different view of whether or not more time should be spent on them. Those whose work had lain in the economic sphere were more likely than others to want more time for all groups of items. Clearly relevance and some prospect of practical application is the key to this result. The heavy emphasis of the course on Economics had produced a much more positive response from those who could see a way of using it. But this serves to underline the less positive response of those whose work has lain more on the social side. The main conclusion seems to be that training courses are likely to be more profitable if the subject matter can be seen to be useful for the work which officers have done or are likely to be doing subsequently.

So far we have been dealing with the topic items which made up the course and specific student reactions to them. But were there more general attitudes towards the Civil Service, the CAS or management training which might have affected these responses to specific items? How did students feel about the way the course was run?

6 Opinions and Attitudes

We put a large battery of opinion questions to course members. Individual questions are subject to all the limitations of public opinion polls but if a variety of questions touching on different aspects of an issue are used a rather more dependable account can be given and, once again, we can apply factor analysis in order to see if there are broad underlying attitudes which influence the way individual questions are answered.

Opinions on the courses were varied. Course members were mildly in favour of its purpose and felt that those who went benefited to some extent but there were doubts about the relevance of what was taught and many felt that the courses should have been tailored more closely to the needs of particular departments. There was a sharper division of opinion on the receptiveness of the Civil Service to CAS type training courses. Course members expressed some uncertainty about the general administrative competence of the Civil Service in comparison with Industry and Commerce and many were uncertain about the willingness of those who had not been trained in the new techniques to accept or apply them. These doubts about the welcome which might be expected for the new ideas did not extend to the ideas themselves. Course members acknowledged fully the value of management training and its growing importance for the tasks of the future. They thought that such training should be extended to senior administrators and especially to people moving into senior positions but they also valued the traditional skills of the good administrator and the importance of learning from experience.

We were able to discern three general attitudes which seem to embody or affect many of the opinions just noted.

The first which we titled "Dissatisfaction with CAS Training" covered a number of opinions that were either critical of the course or against extending it in the Service. Very few held extreme

views, for or against. We gave them 8 opinions about CAS training to which they could have responded critically and most respondents returned 2 or 3 of these negative responses about CAS training out of a possible total of 8. Those who were most dissatisfied tended to be those whose work had lain more in the social sphere or in defence and diplomatic work and dissatisfaction was associated with criticism of the quality and methods of teaching in the course. Those who tended towards dissatisfaction were less likely to have found the CAS course subjects either directly or indirectly useful in their work. We interpret this as the existence amongst some of a general attitude towards the training which may influence their willingness to put individual course subjects to some subsequent use and consequently their judgement of the course subjects.

Another general attitude we called "Criticism of the Civil Service". It dealt with opinions on the receptiveness of the Service towards management training. Rather higher proportions took an extreme view, of 5 possible critical opinions 34% endorsed 4 or 5. It was the younger and less experienced course members who were more likely to take a critical position. However there was little tendency for this general factor to affect response towards the course. That is to say regardless of their assessment of the Civil Service students made and expressed their own judgement of the course.

The third general attitude we called "Denial of Need for Management Training". It covered opinions on the contribution of management training to administrative efficiency. About half of the students took a positive position with either no opinions or one opinion against training out of a possible maximum of 4. Those taking a positive view were more likely to have found Macro-Economics and Statistics subjects directly and all course topics indirectly useful. They were more likely to have worked in economic spheres.

At different points of the questionnaire course members were invited to comment directly on some aspects of the course. From their replies it appears that a substantial proportion could think of little or no benefit gained from the course and for the rest the main benefit was to be found in the contact it offered with other Civil Servants. Not much use had been made subsequently of any notes taken on the course nor of pamphlets related to course topics

which had been sent to students in the years after the course. Critical comment was mainly to the effect that training was not sufficiently relevant to actual work or too general. Two-thirds of the students were highly critical of the quality or methods of teaching on the course. It is abundantly clear that teaching in future must show much more clearly how the subject matter can be applied to the work which Civil Servants know or expect they are likely to be doing. This is above all obvious for those whose work will lay mainly on the social side.

The general conclusions which emerge from this study of opinion and attitude are:

- (i) There was a general willingness to accept the idea of management training although amongst the younger and less experienced civil servant there is a certain scepticism about the reception which new management methods will receive.
- (ii) The members of the first five courses studied have not found that they have been able to apply directly much of the training they were then given. A positive view of their usefulness is more likely to be found amongst those who have worked in the economic sphere than those who have worked mainly on the social side or in defence and diplomatic activities. Clearly for such people, taking the course at that time, content and teaching method needed radical change.



1 INTRODUCTION

1.1 Purpose and method

This is the report of an attempt at evaluating the first five training courses run by the Centre for Administrative Studies. The purpose was to try to find out how some of the very early training curricula had worked out in course members' subsequent working situations. This was done by locating students of those first courses (see Appendix A) and by means of a postal questionnaire seeking their opinions on the utility of the courses in their day to day work. The survey had to be mounted at relatively short notice and the results were required quickly enough to make decisions on new courses being designed in 1970. Some four or five years had elapsed since students had taken the courses which were being evaluated and during this time most of them would have had many changes in their work experience as well as many other opportunities to get informed on the subject dealt with during these early courses. Difficulties in recalling the details of the course were to be expected and so far as possible were provided for in the research design. This statement of the circumstances of the study makes it clear that this could not be a very precise study and gives only a limited illustration of what could be done in evaluating Civil Service training courses and methods.

The time constraint indicated that only a quick postal enquiry could be carried out. The documents used were tested in a very small pilot interview but there are many aspects of training and many factors which could influence the outcome of training and which it is difficult to study effectively in a postal enquiry. The best test of a training course is the way it affects behaviour and success in handling specific problems. What we have here is, on the contrary, a summary of students' opinion on the utility of the courses and even this does not go very far. Modern opinion research techniques enable us to differentiate in some detail the various dimensions of attitude and opinion which go to make up an overall judgement. We had little time to apply such techniques here although we have made a limited use of them. It is not possible in a postal enquiry to collect detailed information about the environmental or organisational factors which must influence the subsequent effectiveness of training. For example, we have no information about the departmental structures or changes in internal relationships which

are important nor did we have much information about the exact nature of the problems or working situations in which students would have applied any knowledge they had gained from training courses.

For these reasons the study is limited and we present the results with the accompanying rider that this is what we found it possible to do under the constraints which existed at the time. Despite these limitations it seems to us a worthwhile exercise. If evaluation of Civil Service training courses and methods is to become more frequent it will be necessary to develop methods for making contact with selected individuals throughout the Service and for examining their experience. Training courses will become more fruitful to the extent that their value in practice, under everyday working conditions, can be rested. This study is a small preliminary contribution to that purpose.

1.2 Design of the postal questionnaire

The design of the study took the constraints into account and tried to get as near reality as possible within the limitations of a postal enquiry. The questionnaire which is shown in full in Appendix D, began with questions which asked the informants to recall their academic training and qualifications and to try to recollect any other courses which they might have attended since their formal education ceased. They were then asked questions which permitted them to review the careers they had followed since the CAS course; what jobs they had held; what their responsibilities had been and how long they had spent in each post. Following on this they were asked to consider the relevance of particular forms of knowledge to the posts they had occupied. In these early questions the students were thus persuaded to review the relevant background factors in their work history. We then asked them to consider the ways in which they had acquired the knowledge they needed to carry out their responsibilities and at this point the central question of the questionnaire (Q6), asked them to say for each of a selected set of items of the training course which they had taken how useful that item had been in their actual Civil Service work since the course. This is why social administration which appeared only in some early sections of the course was not covered in Q6 or subsequently. They were then asked whether, aside from its direct utility, the knowledge they had gained had been more generally useful either in discussion with specialists or in helping them understand what others were writing on the topic.

Following on these detailed core questions informants were asked some general questions about the CAS course and invited to say in what way the course could have been improved.

In a final section of the questionnaire a limited attempt was made to examine general attitudes to training in the Civil Service.

The order of the questions, therefore, represents an attempt to control the situation in which the informants filled in the form. We tried to persuade them to review the main elements in the situation and to give their comments on the utility of the course only after they had considered this necessary background.

1.3 Comparisons with other groups

We tried to give some additional depth to our results by seeking more information from other groups in the Civil Service. We took a sample of Civil Servants in roughly the same position as our informants but who had not taken the CAS course. The idea was to see whether their views on the utility of some of the topics covered in the course would vary in any way from those who had been exposed to the course. We also sought the opinion of the senior officers of our course members. Comparisons of the answers given by the three groups are presented in the report but we do not think that a lot has been gained by making contact with these control groups. The work histories and backgrounds of course members and controls turned out to be somewhat different so that comparisons must be rather limited. However they do afford some illuminating contrasts with our course members and, in this sense, give the study an additional dimension.

1.4 Response and analysis

Normally postal enquiries are carried out in a relatively short period of time. However our informants were very busy and a great deal of telephone follow-up work was necessary to achieve a high completion rate. In the event, questionnaires were completed by 84% of the group from which we sought information (See Appendix A). Co-operation was therefore on a very high level.

The completed questionnaires were processed by Social Survey staff. The replies, where necessary, were classified (or coded). In some cases the answers to groups of questions were combined in order to make analysis more possible. We applied to the more detailed questions

(and especially Q6 and Q9) the statistical process known as factor analysis which makes it possible to see to what extent there are natural groupings among long lists of items. In this way we were able to reduce the 23 separate questions asked on attitudes to training to three basic groups and to regroup the course subject matter in a way more consistent with course members own views. In the final analysis, therefore, we were able to give the detailed answers of informants to the questions and also to offer more generalised results on the basis of which a more integrated view of the subject could be taken and some general indications brought out.

A special problem in the analysis arose out of the fact that some course members had other sources of information about the subject matter of the course either from outside the Civil Service (e.g. University degree courses) or to a lesser extent from other sources inside the Civil Service. Clearly to analyse responses to all questions as if all course members got their knowledge only from this particular course would have produced misleading results. On the other hand we did want some reaction to the course subjects from all who had attended. The solution adopted was to start off in the first section of the report, by dealing with all course members and recording their general reactions to the course material. Subsequently, in the later sections where we attempt a more precise assessment of students reactions to the course itself, we have sieved out those whose main source of information about the course subject discussed was not this course and deal only with that group who got their main information from the course.

1.5 The conclusions

We have tried to draw out the possible implications of our findings in the course of presenting them and, wherever possible, have looked for general conclusions which might be helpful in considering future training courses. With this in view we have summarised and condensed our data as much as we could but we must warn readers that the total numbers involved in the study were small. When we compare one subgroup of informants with another the base number of each section is, of course, even smaller. When we take into account the variability of human response to working situations especially under changing

conditions and circumstances it is obvious that our small numbers demand much caution in attempting any wide reaching generalization.

In Appendix C we give a table which will help readers to assess the statistical significance of the differences between sub-groups. In the report we note the statistical significance of any difference to which we have drawn attention.

In Appendix C we also note the statistical significance of the major differences in percentages in all the tables presented in chapters 4 and 5, as it is from these that most of our major conclusions are drawn.

So, although we have drawn and stated conclusions we hope readers will bear this cautionary note in mind and will perhaps regard the report as suggestive of possible questions, or hypotheses, about the content and design of training courses in the subjects covered whilst making what use of them for immediate purposes seems helpful.

2. CAS COURSE STUDENTS

2.1 Civil Service work experience

This study was conceived as a limited, speedy exercise and no far reaching appraisal was made of the basic objectives of CAS courses, the purposes they were developed to serve and the reasons for deciding their subject matter. In the process of encouraging our informants to review their work experience, however, some information emerged which describes some of the characteristics of the work history of course members and the control group. Table 1 shows what informants told us about the work they had done since the course took place.

The informants were asked to describe in detail the responsibilities they had held in each post since attending the CAS course and they were also asked to code these responsibilities in terms of the 13 point classification of administrators' responsibilities put forward by the Fulton Committee*. It will be seen from Table 1 that it was necessary, on the basis of the informants answers to extend the 13 Fulton categories to 19. The table shows that there are some specialised responsibilities such as the preparation of briefs on current policies of which over 70% of course members had experience. Other responsibilities vary in occurrence as peoples careers proceed. Thus private secretary work is most common in the second post after the CAS course but then disappears once the course member is promoted to Principal. On the other hand financial and negotiating responsibilities become prominent only in the Principal Grade. It will be seen from the last two columns of this table that a substantial proportion of both course members and controls had experience of many of the responsibilities listed (not least those which the Fulton Committee did not identify clearly). It seems that the control group were rather more likely than the course members to have been involved, over the whole period reviewed, in finance and establishments work.

*HMSO The Civil Service Vol. 2
Report on a Management Consultancy Group. Evidence submitted to
the committee under the chairmanship of Lord Fulton. 1966-1968.

TABLE 1. CAREER SINCE CAS COURSE - RESPONSIBILITIES

Main Responsibilities	As Assistant Principal		As Principal		Responsibilities of all posts	
	Post 1	Post 2	Post 1	Post 2	Since CAS course - members	In last 5 years - control group
Forecasting expenditure	6%	4%	19%	20%	28%	41%
Exercising financial and other control over the work of government architects, engineers and other specialists.	6%	4%	23%	15%	35%	44%
Reviewing the investment programmes on the nationalised industries.	3%	0%	4%	5%	12%	9%
Any other financial function, excluding policy formulation	5%	0%	0%	5%	9%	20%
Administration, control, co-ordination, management of all non-financial matters other than research or staff matters	9%	4%	0%	15%	37%	46%
Recommend, or advising on, new policies and policy options and writing the appropriate papers.	36%	13%	70%	74%	90%	95%
Preparing legislation in consultation with members of the legal class	12%	2%	25%	21%	43%	48%
Research functions	3%	4%	0%	11%	15%	17%
Negotiating with local authorities, nationalised industries, private industry and members of the public on matters concerning the operation of existing government policies and on new policies and regulations	15%	7%	40%	34%	56%	62%
Negotiating with foreign governments or firms, etc., abroad	8%	4%	0%	8%	22%	34%
Preparing explanatory briefs on current policy	37%	22%	64%	69%	82%	91%
Preparing material for Ministerial speeches	27%	27%	54%	54%	75%	71%
Preparing answers to Parliamentary Questions and to letters from M.P.s, etc.	40%	29%	64%	68%	86%	90%
Private Secretary work	43%	75%	0%	2%	73%	38%
Making decisions on individual casework arising from legislation	12%	7%	25%	31%	43%	54%
Acting as chairman and secretaries of, and representatives on, Departmental and Inter-Departmental Committees	21%	9%	45%	51%	72%	77%
Directing and operating Establishments Divisions	3%	4%	8%	11%	18%	37%
Managing large blocks of staff	2%	2%	0%	3%	8%	9%
Others	0%	2%	0%	2%	6%	5%
Base	91 (100%)	45 (100%)	95 (100%)	65 (100%)	97 (100%)	87 (100%)

Note: "Others" include: Giving lectures/seminars, organising travel abroad, working on appointments to boards of nationalised industries and economic planning councils, designing forms.

On average course members had been involved in about 8 areas of responsibility. This of course does not imply that they had held as many posts. On average course members had held 3.5 posts and control group members about the same over the past five years although the latter had entered the Service earlier.

The control group were somewhat older than the course members, (Table 2).

Table 2 NUMBER OF POSTS HELD, AGE AND YEAR OF ENTRY INTO A.P. GRADE

Number of Posts Held			Present Age			Year of Entry into AP Grade		
	Course Members	Control Group		Course Members	Control Group		Course Members	Control Group
1	% 1	% 0	Under 31	% 41	% 5	before 1962	% 49	% 97
2	13	25						
3	38	33		31-34	51	56	1962 and after	50	3
4	40	33	35 & over					
5	5	5		7	30			
6	2	2						
7	0	1						

The educational background of both groups was similar but the control groups who were older, had taken more non degree courses (Tables 3 & 4).

Table 3 QUALIFICATION

Qualification	Course Members	Control Group
Higher degree and graduate university diploma	9%	6%
First degree	94%	96%
Full membership of a professional institution, barrister, solicitor, architect	3%	0%
Other qualifications, or experience of any subject on courses not leading to a qualification	58%	77%
No qualification and no experience of any subject other than the C.A.S. 'long' course for A.Ps.	3%	0%
Total (100%)	97	87

Table 4 SUBJECT OF QUALIFICATION

Subject	All Qualifications		Highest Qualification	
	Course Members	Control Group	Course Members	Control Group
C.A.S. Course subject	51%	79%	20%	17%
Social or environmental subject	26%	29%	12%	12%
Arts	79%	93%	73%	77%
Science and Technology	9%	14%	6%	5%
Total (100%)	94	87	94	87

2.2 Subject content of work

A broad grouping of the work areas covered since this course is given in the next table (Table 5). This is based on informants' own coding of the subject content of work done. In Appendix A this grouping is given by department. Course members, who had come into the Service more recently than the control group, were more likely to have worked on social subject matter. The control group were more likely to have worked on economic subject matter or in posts where the responsibilities involved a mixture of social and economic work. Course members none the less had spent a considerable part of their total work experience in economic or mixed social and economic work.

Table 5 CAREER SINCE CAS COURSE GROUP - SUBJECT CONTENT OF WORK

Main subject content	As Assistant Principal		As Principal		Total work experience since CAS course	Total work experience of Control Group in last 5 yrs.
	Post 1	Post 2	Post 1	Post 2		
Social	27%	31%	22%	21%	33%	20%
Economic	32%	22%	33%	26%	41%	60%
Social and Economic	17%	31%	25%	28%	41%	54%
Defence	16%	20%	19%	26%	25%	23%
Diplomatic, Foreign, Colonial or Commonwealth Office work	6%	7%	9%	8%	10%	10%
Working in Establishments branches, or involving Training, Selection of entrants, Research	6%	2%	2%	8%	11%	32%
Others	0%	0%	1%	0%	3%	3%
Base	91 (100%)	45 (100%)	95 (100%)	65 (100%)	97 (100%)	87 (100%)

Note: 'Others' include: Principal in Cabinet Office.

Private Secretary to Prime Minister.

Civil Secretariat, Cabinet Office.

2.3 Desire for additional knowledge

After reviewing their work experience informants were asked Q.4:

"While holding any of the posts you have described in the previous question have you encountered any work situation where additional knowledge of any academic or technical subjects would have been useful?" Table 6 shows their answers.

Table 6 DESIRE FOR ADDITIONAL KNOWLEDGE

Subjects of which additional knowledge would have been useful	Proportion of course members who would have found additional knowledge of subject useful	Proportion of control group who would have found additional knowledge of subject useful (in last 5 yrs.)
Micro-economics	16%	43%
Macro-economics	20%	48%
Statistics	26%	56%
Administrative Techniques	15%	39%
Industry	32%	48%
Sociology	9%	17%
Social Administration	12%	11%
Law	8%	7%
Languages	0%	7%
Others	11%	20%
No subjects	23%	5%
Base	97 (100%)	87 (100%)

Note: 'Others' includes:

For course members: Psychology; general management theory; mathematics; navigation and telecommunication; medical statistics; elementary electronics; educational theory/administration.

For control group: contract procedure; medical sciences; parliamentary procedure; local authority powers/organisation; basic electronics; comparative and constitutional history; taxation; town-planning.

Perhaps the most interesting line in this table is the last one from which it emerges that a substantial proportion of course members, in the first five years of their service, did not feel any need for additional knowledge in "any academic or technical subjects". This may reflect their views of "academic" knowledge at large or perhaps of the particular "academic" subjects with which the course was concerned. Control group members were less certain of themselves. Approximately half felt they needed more statistics, economics or knowledge of industry. Among course members who were younger and less experienced many fewer mentioned these subjects and, despite the fact that they were more likely than the control group to have worked in social departments in the last five years, only about the same proportion of them felt the need for more instruction in social administration. Among course members about one third had felt the need for more knowledge of "industry". It seems that only a minority of course members had felt a need for more information on many course subjects.

2.4 How did the course relate to other sources of knowledge

Young men exposed to the continual pressure of public administration might be expected to absorb information from many different sources. And with so much discussion of the relevance of better management to better administration it is interesting to note what sources had been found useful in the subject area of the CAS course. All informants were asked Q.5:



"The civil servant gains the knowledge he requires to do his Civil Service work from a number of different sources. How did you acquire your existing knowledge of each of the subjects shown in the table below?" (Table 7).

Table 7 SOURCES OF KNOWLEDGE OF CAS COURSE SUBJECTS

(a) All sources of knowledge	Micro-Economics		Macro-Economics		Statistics		Administrative techniques		Industry		Social Administration	
	CM	CG	CM	CG	CM	CG	CM	CG	CM	CG	CM	CG
	%	%	%	%	%	%	%	%	%	%	%	%
University first degree course	27	18	28	18	20	13	2	1	15	9	10	7
University higher degree or diploma course	4	2	5	2	5	3	3	1	2	2	0	2
CAS course for A.Ps	96	1	95	1	97	1	96	3	93	1	39	2
Departmental course	2	2	2	2	0	0	13	11	5	3	4	5
Civil Service course other than CAS course for A.Ps or departmental course	0	29	1	28	5	5	14	43	4	7	5	9
Course outside Civil Service (eg professional training)	3	10	4	13	5	6	6	13	6	14	0	0
Books and articles	60	66	66	75	32	15	46	49	63	54	40	41
Professional contacts with other Civil Servants	20	40	25	40	26	47	30	49	28	36	34	30
Contact with specialists outside the Civil Service	7	17	8	17	5	8	9	18	33	44	19	15
Any other major source of knowledge (previous jobs, general knowledge etc.)	5	0	4	0	4	2	4	3	8	2	3	0
No knowledge of this subject	0	20	0	18	0	25	0	10	1	22	31	48

CM: Course Members

CG: Control Group

It must be said here that Social Administration had been taught only on the first few courses of those covered and this perhaps explains why the proportions mentioning it are relatively low. In all topics the control group, who had not been exposed to the course, had larger proportions saying they had no knowledge of the topic, and also for most topics larger proportions relying on contacts with other civil servants. That is to say they had relied on picking up their information, such as it was, in the course of their day to day work. In contrast, for five out of

seven topics, the CAS course was mentioned by nearly all course members despite the lapse of five years since they had taken the course. The proportions of course members mentioning their degree courses as a source of knowledge was, as to be expected, much lower. It must be remembered that 73% of the course members had Arts degrees. Without Service experience or some special courses very few of the course members would have had any contact with the course subjects wider than could be got by members of the general public from published books or articles.

2.5 Most important source of knowledge

Informants claiming some knowledge of the course topics were next asked which of their sources was "the most important". Table 8 shows their answers.

Table 8 THE MOST IMPORTANT SOURCE OF KNOWLEDGE OF COURSE TOPICS

(b) Most important sources of knowledge	Micro-Economics		Macro-Economics		Statistics		Administrative techniques		Industry		Social Administration	
	CM %	CG %	CM %	CG %	CM %	CG %	CM %	CG %	CM %	CG %	CM %	CG %
(a) University first degree course	19	16	17	13	12	14	0	0	7	7	8	2
University higher degree or diploma course	2	1	2	1	2	3	1	1	1	0	0	0
CAS course for A.Ps	76	1	69	1	70	2	72	0	45	0	28	0
Departmental course	1	0	1	0	0	0	1	0	1	0	0	0
Civil Service course other than CAS course for A.Ps or departmental course	0	25	0	22	2	20	7	30	1	0	0	7
Course outside Civil Service (eg professional training)	0	3	0	6	1	6	2	9	4	9	0	0
Books and articles	1	32	8	44	8	20	7	22	16	27	25	51
Professional contacts with other Civil Servants	1	17	3	7	4	31	5	34	4	21	28	37
Contact with specialists outside the Civil Service	0	4	0	6	0	2	2	1	15	33	8	2
Any other major source of knowledge (previous jobs, general knowledge etc.)	0	0	0	0	0	2	2	1	2	3	3	0
Total	100	100	100	100	100	100	100	100	100	100	100	100
Base	95	69	95	69	97	64	96	70	95	67	67	43

CM: Course Members

CG: Control Group

For five out of six topics the CAS course was regarded as by far the most important source by course members. For most topics a small minority of course members and control groups mentioned their degree courses as the "most important" source. For such people whose degree courses covered a CAS course subject it seems obvious that their university work would make more impression than a limited CAS course.

For Social Administration which was taught in only some of the courses the CAS course seemed much less important than 'books and articles' and 'professional' contact with other civil servants taken together. For this reason this topic was excluded from subsequent sections of this report. For all topics however the control group, to a very substantial extent, had to fall back on such sources for their information even though other special Civil Service courses helped to some extent.

2.6 Conclusion

There seems little doubt then that in the absence of the CAS course knowledge of the subject matter of the course would in the main have been available only casually, if at all. Civil servants in their early years of service deal with a varied group of responsibilities and quite frequent change of post. The efficiency with which they carry out their tasks must require an equally varied range of knowledge and, especially, familiarity with modern methods of appraisal and decision making. Left to themselves it seems apparent that many would try to cope without the aid of available modern techniques. If the subject matter of the course was necessary for administrative or managerial efficiency some method of familiarising civil servants with it was essential.

3. HOW USEFUL WERE THE CAS COURSES

3.1 Introduction

Any first attempt at devising training courses would almost certainly prove unsatisfactory in some respects. The preceding section has sketched in some of the background factors which might influence the reception of the course by students. We now go on to examine the utility of the course when tested against the needs of officers as they perceive them in their day to day work. In our questionnaire we listed all the items in the course grouped under broad subject headings and asked course members "regardless of whether your knowledge of the topic was gained from CAS course or not please indicate how useful (it) has proved to be in your Civil Service work since attending the CAS course". 'Useful' was defined as 'directly applicable'. Our question had to be broadly worded like this because five years had passed since the course and many other sources of knowledge on the topic covered would have been available in that time. Other questions enabled us to distinguish those students for whom the CAS course was their most important source and the answers of such students to these questions of utility are examined separately later on. Meanwhile we present in Table 9 the appraisal by all students, the control group and superior officers of the utility of the subjects taught.

3.2 The views of course members

It will be seen that between 50% and 75% of all course members expressed the view that the individual topics covered in the course were "of no use" or "of hardly any use". The proportions expressing the opposite view, namely that topics covered were "of great use" or "very great use" ranged up to 17%. The latter figure related to Cost Benefit Analysis. Statistics was least likely to be thought useful and the adverse judgment related also to an item which on the face of it would be of fairly wide

application - 'Index numbers'.* The subject groups course members were most likely to think useful were Micro-economics and Industry. These views relate to the course members' mental picture of the subject matter and for those whose most important source of information on the topic was the CAS course the views expressed must also reflect the way the subject was taught in the course, the nature of the day to day work of the informants and the approach adopted to problems arising in their day to day work, e.g. the extent to which statistics were actually used in day to day departmental work.

In Table 10 we have taken the first three responses 'very great', 'great', 'some use' and added them to give the proportion attributing at least some use to each topic. We have then averaged these proportions for the different groups of topics. These averages are given in the table under the heading 'Useful'. These averages confirm that, also on this level of appraisal, Micro-Economics and Industry were most likely to be thought 'useful' by course members. This table also gives comparable responses for the control group and superior officers.

* At this point it is necessary to refer to items numbered 16 and 22 which were not in fact covered in the course but were included in the questionnaire as validity checks. It was not possible for information on these topics to be got from the course. Table 9 does not give a clear indication because of the phrasing of the question would have enabled informants to include information on these topics gained from sources other than the CAS course. Later reference is made to these items when the responses of those whose main source of information was the CAS are considered.

In Tables 9, 10, 11 and 12 where no answer was recorded the percentages have not been adjusted and therefore the rows often do not add to 100.

TABLE 9.	
MICRO-	
(1) Micro	
(2) app	
(3) Mark	
(4) sup	
(5) Econ	
(6) and	
(7) Publ	
(8) Cont	
(9) Invest	
MACRO-	
(10) Macro	
(11) The	
(12) mod	
(13) Forw	
(14) pro	
(15) Devel	
(16) eco	
(17) Bala	
(18) Inter	
(19) pro	
(20) And	
(21) con	
STATUS	
(22) Freq	
(23) dist	
(24) Index	
(25) Time	
(26) Comm	
(27) Stock	
ADMINI	
TECHNI	
(28) Line	
(29) New	
(30) (P	
(31) Use	
(32) Mon	
(33) at	
INVEST	
(34) Indu	
(35) of	
(36) Inter	
(37) con	
(38) Func	
(39) of	
Not inv	

TABLE 9. HOW USEFUL ARE CAS COURSES?

CAS course topic	COURSE MEMBERS						CONTROL GROUP						SUPERIOR OFFICERS					
	DIRECT APPLICABILITY OF KNOWLEDGE (a) Usefulness to your Civil Service work since attending the CAS course						Usefulness of topic to the administrative civil servant						Usefulness of topic to the course member					
	Of very great use	Of great use	Of some use	Of hardly any use	Of no use		Of very great use	Of great use	Of some use	Of hardly any use	Of no use	Little or no detailed knowledge of subject	Of very great use	Of great use	Of some use	Of hardly any use	Of no use	Little or no detailed knowledge of subject
MICRO-ECONOMICS																		
(1) Relative scarcity and opportunity cost.	%	6	6	31	26	31	11	17	28	5	6	33	2	5	18	21	39	11
(2) Market analysis of supply and demand.	%	7	6	26	24	36	7	17	37	7	7	25	1	2	23	20	45	6
(3) Elasticity of demand and supply.	%	6	5	33	19	37	11	21	29	7	6	26	2	7	17	17	49	6
(4) Public utility pricing.	%	3	6	16	23	52	9	29	23	6	5	29	1	5	10	15	57	10
(5) Cost benefit analysis.	%	6	11	34	26	23	17	33	30	1	3	15	5	11	31	19	27	5
(6) Investment appraisal.	%	11	7	22	19	41	13	31	25	5	7	20	5	1	23	13	39	7
MACRO-ECONOMICS																		
(7) National income accounts.	%	4	5	24	24	43	18	18	25	6	9	23	4	5	18	14	51	6
(8) The basic Keynesian model of the economy.	%	4	3	30	18	44	15	28	26	8	7	16	4	2	18	10	52	12
(9) Forward economic projections.	%	4	5	28	19	42	14	28	36	9	1	13	8	7	17	18	42	6
(10) Determinants of economic growth.	%	3	3	28	20	45	16	29	24	9	5	16	5	4	21	20	42	6
(11) Balance of payments.	%	7	6	29	13	44	14	24	28	11	7	16	5	8	17	18	48	2
(12) International monetary problems.	%	7	4	19	19	52	9	13	39	11	8	20	4	2	14	19	56	2
(13) Aid to developing countries.	%	3	5	13	12	63	6	9	30	22	8	24	1	2	12	12	68	2
STATISTICS																		
(14) Frequency distributions.	%	4	5	27	18	46	2	9	34	11	3	37	1	6	23	14	38	14
(15) Index numbers.	%	4	4	25	25	41	6	17	23	7	3	44	1	6	24	18	36	13
(16) Time series.	%	3	3	21	24	49	5	11	21	9	3	49	1	2	23	14	38	18
(17) Correlation.	%	4	7	23	18	48	6	18	26	9	2	38	1	6	24	13	37	17
(18) Stochastic processes ¹ .	%	1	1	9	11	72												
ADMINISTRATIVE TECHNIQUES																		
(19) Linear programming.	%	0	3	22	27	48	1	8	29	21	2	38	0	4	19	13	44	17
(20) Network analysis (P.E.R.T.).	%	0	10	27	26	36	1	18	48	10	1	21	1	11	29	15	30	11
(21) Use of computers.	%	2	8	37	23	29	7	30	41	8	2	11	2	5	37	17	29	8
(22) Management by objectives ¹ .	%	1	8	27	18	41												
INDUSTRY																		
(23) Industrial structure of the U.K.	%	3	9	36	13	36	10	30	31	7	3	18	6	11	23	15	39	4
(24) Interpretation of company accounts.	%	2	7	29	18	43	10	16	29	15	7	23	7	4	17	13	54	4
(25) Functional operations of industry.	%	5	6	28	19	38	7	20	30	10	2	31	0	5	26	7	50	10

¹ Not taught on C.A.S. course

Table 10 AVERAGE RESPONSES TO TOPIC GROUPS

CAS Course Group	<u>Course Members</u>		<u>Control Group</u>			<u>Superior Officers</u>		
	Direct usefulness of course subjects		Usefulness of subject to the administrative civil servant			Usefulness of subject to the course member		
	Useful*	Not useful	Useful*	Not useful	Little or no knowledge of topic	Useful*	Not useful	Little or no knowledge of topic
<u>MICRO-ECONOMICS</u> (Topics 1-6) %	40	60	62	11	25	29	62	8
<u>MACRO-ECONOMICS</u> (Topics 7-13) %	33	65	63	17	18	26	69	6
<u>STATISTICS</u> (Topics 14-17) %	32	67	45	12	43	30	54	16
<u>ADMINISTRATIVE TECHNIQUES</u> (Topics 19-21) %	36	64	61	15	23	35	51	12
<u>INDUSTRY</u> (Topics 23-25) %	42	57	61	15	24	33	61	6

* 'very great' plus 'great' plus 'some use'

3.3 The views of superior officers

It is interesting to compare the views of superior officers who were asked "from your knowledge of the duties and responsibilities of the course member has had to undertake (during the time you have been his superior officer) would you please indicate how useful you think knowledge of this topic has been to him". It may be said from Table 10 that apart from Statistics and Administrative Techniques superior officers were a little less likely than course members to say that the subject matter of the course was useful.

3.4 The views of the control group

The educational background of superior officers might be expected to differ from that of course members and this would have some effect on responses to topics which to some extent have only recently made their way into university curricula. The results reflect the fact that many of the topics are still new, and perhaps not yet acceptable to many civil servants. Our control group are much nearer in age and educational background to course members and somewhat more experienced. They were told that the list of items were topics taught on the CAS course and asked "on the basis of your own work experience in the Civil Service would you please indicate how useful you think knowledge of each of these topics might be to the administrative civil servant".

Table 10 shows that the control group were notably much more likely to think the topics 'useful' and proportions ranging up to 50% said particular items were of 'very great' or 'great use'. These responses are notable since quite substantial proportions of the control group would not give a usefulness response saying that they had 'little or no knowledge of the subject'. Could this be the explanation of their positive reaction? Perhaps there is an apparent relevance of the course topics to much civil service work which inclines those not exposed to closer-contact with the subject to react positively. If this is so then the less warm response of course members must reflect either the impression created by finding out in more detail what the topics actually cover or, alternatively, the way the topics were presented during the course.

3.5 Was the course of any general use?

The prime purpose of any CAS course must be to help students do their day to day work more efficiently. But there are many ways in which additional information can be brought into play or be of indirect use. We therefore asked all course members whether apart from being of direct application to their work the course topics had been useful in more general ways. Table 11 shows that slightly fewer course members thought the course had helped them "to have more useful discussion with specialists" than had found the course of some direct use in their day to day work. Rather more thought that their 'understanding' or articles and reports on macro and micro economics had been improved but very many more thought that the knowledge gained had been of "some general educational value". It seems that the more the questions move away from direct utility to something more indirect or general the bigger the proportion which gives a positive response.

3.6 Course members 'understanding' of the course

No matter how intrinsically useful the subject matter of the course might be its presentation by course teachers would be of crucial importance. Some of our results throw some light on this from the course members point of view. Table 10 shows course members' opinions on their "understanding of topics at the time you completed CAS course". The reader must be reminded that this time was five years ago. The answers then are far from precise but do perhaps indicate the residual impression left with course members of how they felt about the instruction received.

It will be seen that the responses are much more positive than were the answers to questions about the utility of the course. Indeed the responses seem much too positive and a check is provided by items 18 and 22 which were not part of the course. Whilst students may well have obtained some information about these items from other sources before the course it seems unlikely that a fashionable subject like Management by Objectives was very widely discussed five years ago. These responses then probably overstate considerably informants' understanding of the course topics at the time of the course except for those students whose

previous educational curricula may have covered them. It is quite likely for example that students who did some statistics in their degree courses would have become familiar with stochastic processes.

Despite this degree of confusion about the position at the time of the course the contrast between the substantial proportions saying their understanding was very good or fairly good and the very small proportions saying that they found the course topics of 'very great' or 'great' use is of interest. The implication is that utility was not limited by and large because of the student's failure to grasp the subject matter. This did play some part. Statistics where utility was felt to be lowest was also the topic where the highest proportion thought their understanding at the end of the course was 'fairly bad' or 'very bad'. On the other hand Industry where understanding in general was not much higher than for statistics was thought useful by a larger proportion than for any other group of topics. It seems then that course members were judging the utility of the course topic by other criteria than their own understanding of it at the end of the course.

We invited course members to go on and say whether 'more or less time' should have been spent on the topic during the course. Table 12 shows that the two items (18 and 22) which were not part of the course gave the largest proportion of students saying "did not attend or do not remember attending lectures on this topic". This did not prevent almost the same proportions thinking that more time should have been spent on them. Perhaps for students who, after such a long time had elapsed, were not completely clear on whether or not they had attended the two kinds of answer amount to much the same response. The majority of students by and large would not have liked more time. For example the potentialities of 'market analysis of supply and demand' seem to most students exhausted. For two items (correlation and the use of computers) however around half of all students would have liked more time.

TABLE II. INDIRECT UTILITY OF KNOWLEDGE

C A S Course Topic	(b) Whether knowledge of topic has helped you to have more useful discussions with specialists on the topic inside or outside the Civil Service			(c) Whether knowledge of topic has improved your understanding of articles and reports on the topic			(d) Whether knowledge of topic has been of any other general educational value	
	Yes	No	Am not required to have discussions with specialists	Yes	No	Am not required to read articles and reports	Yes	No
MICRO-ECONOMICS								
(1) Relative scarcity and opportunity cost %	37	3	60	53	1	44	84	15
(2) Market analysis of supply and demand . . %	39	3	58	55	1	43	87	13
(3) Elasticity of demand and supply %	37	4	59	56	2	41	82	18
(4) Public utility pricing . . . %	25	5	70	49	2	47	73	27
(5) Cost benefit analysis . . . %	43	3	54	62	1	36	89	11
(6) Investment appraisal . . . %	39	4	57	57	1	41	75	25
MACRO-ECONOMICS								
(7) National income accounts %	24	7	69	49	4	43	77	23
(8) The basic Keynesian model of the economy %	27	6	67	49	4	43	84	16
(9) Forward economic projections %	34	7	58	51	6	40	77	23
(10) Determinants of economic growth . . . %	28	5	66	49	2	45	84	16
(11) Balance of payments . . . %	36	4	59	56	2	39	89	11
(12) International monetary problems %	26	5	68	47	2	47	90	10
(13) Aid to developing countries %	18	6	72	40	3	52	82	14
STATISTICS								
(14) Frequency distributions %	31	8	58	36	6	53	66	34
(15) Index numbers %	31	11	55	33	8	54	57	43
(16) Time series %	26	11	60	29	10	56	57	43
(17) Correlation %	32	9	57	34	8	53	64	36
(18) Stochastic processes [†] . . %	10	12	73	13	15	63	36	61
ADMINISTRATIVE TECHNIQUES								
(19) Linear programming . . . %	29	9	62	35	5	53	65	32
(20) Network analysis (P.E.R.T.) %	33	9	57	40	5	46	71	26
(21) Use of computers %	46	11	42	47	5	45	85	13
(22) Management by objectives [†] %	28	11	58	34	9	45	60	34
INDUSTRY								
(23) Industrial structure of the U.K. %	40	3	54	41	5	44	81	18
(24) Interpretation of company accounts . . %	33	5	59	37	6	48	68	31
(25) Functional operations of industry %	35	6	54	35	10	44	67	30

[†] Not taught on C.A.S. course.

3.7 Relationship between utility of subjects and desire for more course time on them

The relationship between the response on utility question and to the question asking if more time should be spent is interesting.

Subject group	% saying topic was 'useful'	% saying 'little or much more time'
Statistics (14-17)	32	47
Macro Economics (7-13)	33	39
Administrative techniques (19-21)	36	39
Micro Economics (1-6)	40	30
Industry (23-25)	42	25

It seems that the more likely course members as a whole were to think the course topic useful the less likely they were to think that more time should have been spent on it during the course. This could mean that where course members found themselves able to apply the information gained on the course they were likely to think that what they had learned for their purposes was sufficient and no great gain would have come from spending more time on it. However it must be remembered that majorities of the course members neither found the course useful nor wanted more time spent on it. Perhaps it can be said that students as a whole were not in general, likely to have found course topics very useful in their day to day work nor sufficiently helpful to have wanted to spend more time on them. And we show overleaf too that course members fall into separate groups with rather different reactions. It must also be remembered that, as has been shown, sizeable minorities of course members did not regard the CAS as their most important source of knowledge on the course subjects.

TABLE 12. UNDERSTANDING THE CAS COURSE and DESIRE FOR MORE TIME TO BE SPENT ON COURSE TOPICS

C A S Course Topic	(e) Your understanding of topic at the time you completed the CAS course					(f) Whether more or less time should have been spent on topic					
	Very good	Fairly good	Uncertain or can't remember	Fairly bad	Very bad	Much more time	A little more time	No change	A little less time	Much less time	Did not attend or do not remember attending lectures on topic
MICRO - ECONOMICS											
(1) Relative scarcity and opportunity cost	% 20	55	13	9	3	4	22	54	8	6	3
(2) Market analysis of supply and demand ..	% 22	57	12	7	2	0	11	60	13	8	4
(3) Elasticity of demand and supply	% 23	59	10	6	2	2	11	55	19	6	4
(4) Public utility pricing...	% 11	33	31	14	8	8	30	41	5	6	6
(5) Cost benefit analysis...	% 15	55	11	15	3	15	28	41	4	7	1
(6) Investment appraisal ..	% 10	43	21	18	8	12	32	33	6	6	6
MACRO - ECONOMICS											
(7) National income accounts	% 11	39	22	19	9	9	26	46	9	4	2
(8) The basic Keynesian model of the economy.	% 15	45	15	15	8	12	24	46	4	5	5
(9) Forward economic projections	% 7	33	29	22	9	12	34	36	5	5	4
(10) Determinants of economic growth....	% 9	46	16	18	10	14	32	35	5	4	6
(11) Balance of payments..	% 18	59	13	8	2	6	31	44	6	7	2
(12) International monetary problems	% 10	45	12	26	6	12	30	38	6	8	2
(13) Aid to developing countries	% 4	39	27	25	2	5	12	37	20	10	13
STATISTICS											
(14) Frequency distributions	% 7	36	22	21	14	16	32	35	5	4	6
(15) Index numbers	% 5	40	20	18	18	16	29	34	8	4	7
(16) Time series	% 2	31	29	19	20	18	27	33	7	4	10
(17) Correlation	% 8	31	20	25	16	21	31	31	6	4	6
(18) Stochastic processes [†] ..	% 1	9	43	12	31	16	15	21	4	4	37
ADMINISTRATIVE TECHNIQUES											
(19) Linear programming...	% 7	35	16	27	12	10	27	46	7	5	2
(20) Network analysis (P.E.R.T.)	% 11	54	8	15	8	5	27	52	8	4	2
(21) Use of computers	% 5	52	18	16	7	21	28	40	4	2	2
(22) Management by objectives [†]	% 5	25	33	12	13	12	20	25	1	5	37
INDUSTRY											
(23) Industrial structure of the U.K.	% 14	43	26	11	3	4	23	48	6	7	11
(24) Interpretation of company accounts...	% 4	32	19	33	10	14	18	53	4	8	3
(25) Functional operations of industry	% 5	35	34	16	5	2	15	51	4	8	18

[†] Not taught on C.A.S. course.

3.8 Assessments from people whose main source of information was CAS course

In the table below we compare views on the utility of course subjects of all course members and of those members who said that the CAS course was their main source of information. (Table 13)

Table 13 RATINGS OF SUBJECT MATTER BY ALL COURSE MEMBERS AND THOSE MEMBERS WHOSE MAIN SOURCE OF INFORMATION WAS CAS COURSE

	<u>Useful</u>		<u>Good Understanding **</u>		<u>Would have liked more time ***</u>	
	All course members	Main source was CAS	All course members	Main source was CAS	All course members	Main source was CAS
Micro Economics	40	39	68	63	30	33
Macro Economics	33	31	54	57	38	41
Statistics*	32	23	40	33	48	50
Administrative Techniques*	36	31	56	55	40	42
Industry	42	28	46	34	26	17

* Excluding dummy variables

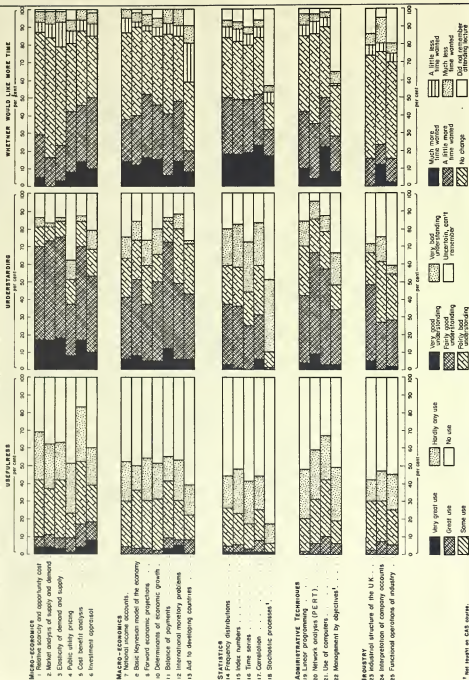
** Excluding middle category uncertain or can't remember

*** Excluding 'no change' or 'cannot remember'.

For most subjects course members whose information mainly came from the course were less likely to say the subject was useful than others for whom the CAS represented a minor addition to information they already had. A conclusion pointing in the same direction emerges from comparison of responses to questions about 'understanding' of topics at the end of the course. But there is less difference between the two groups for 'would have liked more time'. If then we wish to examine the effects of the course in more detail we must accept the fact that some members of the course have had other sources of information and this affects their judgement of the utility of course subjects and of the courses. Furthermore it affects judgement on the different subjects to a varying degree, eg, the difference between the two columns under 'useful' is greater proportionately for Statistics and Industry than for the other three subjects. To include such students in more detailed analysis would therefore distort the results and in the remainder of this report most of the detailed analysis is based only on those course members for whom the course represented the 'most important' source. On the following pages we give diagrams showing responses under 'usefulness' and 'understanding' and 'more time' for students whose main source of information was the course (Figure 1).*

*Blank spaces in 'understanding' and 'more time' represent the proportion giving non committal answers.

FIG. 1. RATINGS OF COURSE TOPICS - BY COURSE MEMBERS WHOSE MAIN SOURCE OF INFORMATION WAS C.A.S. COURSE



* Not taught in C.A.S. course.

4 THE COURSE AS PERCEIVED BY STUDENTS

4.1 Factor analysis of students' assessments

The foregoing discussion is based on the answers students gave to the questions about each of the items presented under various subject headings. The assumption was that each item was looked at by students in the same way as any other item and rated accordingly. Simple summaries of the position for the groups have been produced by adding up the standard responses and averaging for the group. It seemed to us possible however that students might not consider all items in the same way. After a lapse of five years they might well think not of discrete items but groups of items, lumping all the items in one group and giving them all the same rating. Further they might, in their minds, group the items rather differently from the way they had been grouped in the course and on our questionnaire, under subject headings or not group them at all.

If there was an alternative grouping related more directly to informants' way of thinking about the course then it would be more realistic to generalise about the course only after identifying such groups. A method was needed for grouping items, and following on this, of adding up the responses to the items thus grouped so that informants could be classified very broadly according to the way they perceived the course material.

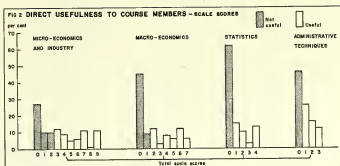
In Appendix B the methods used to achieve these ends are described. Briefly we applied the statistical process known as factor analysis in order to identify the groups of items to which students seemed to be responding in much the same way. For example in Question 6a we had asked for each item, whether it had been found 'of very great use', 'of great use' or 'some use', 'of hardly any use', 'of no use'. These fine distinctions were adopted in order to make students consider seriously their attitude towards the items. Obviously such distinctions could not be based on very precise or objective data about utility since we were asking them to review their experience over five years. But they could be used as rough indicators of a pattern of response and, taking them as such, we found out the items to which informants were responding in the same way, that is to say, we identified groups of items which had something in common.

For Direct Usefulness the course fell into four sections differing from the original five. The four sections were Micro Economics and Industry, Macro Economics, Statistics and Administrative Techniques. For course members thinking about usefulness then, Micro Economics and Industry were associated and somewhat distinct from Macro Economics. For Indirect Usefulness however, where informants were applying a less severe criterion of usefulness, Micro Economics and Macro Economics were associated. Through this process we knew what subject items could be taken together.

Next we needed a method of scoring responses to the items which enable us to add responses to each item in the subject group and thus produce a composite score for the group as a whole. Informants had marked each item on the same scale in Question 6a. For Micro Economics and Industry taking all the items grouped together in the attitude area of Direct Usefulness we assigned a score of 1 for each item considered 'of very great use', 'of great use' or 'of some use' and 0 for 'hardly any use' or 'no use'. Since there were nine items in this subject group anybody taking a very positive attitude to all items could have a score of 9 for attitude area Direct Usefulness in subject group Micro Economics and Industry. Similarly anyone with a constantly negative attitude would have a score of 0.

4.2 Direct Usefulness

The scores achieved according to this method for all the subject areas identified are shown in diagrams presented overleaf. (Figure 2). It will be seen that we pick out in every distribution of scores presented a point which is used to distinguish a low score from a high score. This point is as near as possible to the median so as to give two substantial groupings and we use it to classify every informant in terms of his general inclination to regard, eg Micro Economics and Industry, as relatively useful or not useful. This grouping is used, analytically, later on.



It will be seen that this more careful appraisal of responses broadly confirms the impression given by the simple averages presented earlier. Substantial proportions of these students (score = 0) found not one of the items in the subject groups directly useful. Very few found all of the items in the subject groups useful. The picture looks worst for Statistics and best for Micro Economics and Industry.* Micro Economics and Industry appears to be a collection of items which might enable students to feel closer to real life problems and the way economic matters are managed. Statistics, on the other hand, unless taught in relation to matters which the student was actually handling might appear somewhat remote and many of our course members unless working in an environment which made regular use of statistics might not have many opportunities to apply what they had learnt.

Later we present some general opinions on the course expressed by course members and these, though not always specific to particular topics or subject items do help us to understand some of the results presented in this section.

4.2 1. Relation of the working environment to usefulness of subjects

One aspect of the working environment is illustrated by Table 14. These analyses judgements of course subjects made by course members against judgements made by their superior officers. It will be seen

* These differences are highly significant statistically: Statistics v Micro-economics and industry ($P < .001$). See Appendix C.

that those course members whose superior officers judge a subject group to be useful are much more likely themselves to judge that subject group useful. Information gained during training courses is probably more likely to be put to work if superior officers think it is useful to do so. It follows that unless superior officers are persuaded of the usefulness of new information or working procedures, they are less likely to be put to work than might otherwise be the case.

Table 14 DIRECT USEFULNESS OF COURSE SUBJECTS ANALYSED BY SUPERIOR OFFICERS JUDGEMENTS ON USEFULNESS TO COURSE MEMBER

Course Members Whether subjects directly useful	Superior officers judgement of usefulness to course member of course subjects	
	Not useful	Useful
	% Base*	% Base*
Micro-Economics and Industry directly useful (factor score 3-9)	(1) 26 (35)	79 (33)
Macro-Economics directly useful (factor score 2-8)	(11) 36 (28)	50 (26)
Statistics directly useful (factor score 1-4)	(111) 26 (35)	63 (19)
Administrative Techniques directly useful (factor score 1-3)	(1V) 39 (23)	60 (30)

* The number of informants who said their main source of knowledge of a particular subject was the CAS course.

The same broad categorisation can be used in relation to informants' work experience over all jobs done in the five years since the CAS course. Table 15 gives the proportion of course members (in broad groupings of work done) who rated the subject group directly useful. It will be seen that those course members whose work had lain in the social departments were less likely to rate most subject groups as directly useful. It was perhaps to be expected that those whose work was on the economic side would be more likely to have found Micro economics and Industry directly useful. But relatively high proportions of these students also said this for Statistics and Administrative Techniques whereas many fewer with experience on the social side were likely to rate Statistics as directly useful. It

seems to follow that in the years since the course either work on the social side had not emphasised the use of statistics or that the way statistics was presented on the course failed to suggest to course members how statistics could be of use in the work of the social departments.

Table 15 DIRECT USEFULNESS OF COURSE SUBJECTS ANALYSED BY SUBJECT CONTENT OF WORK OVER ALL POSTS

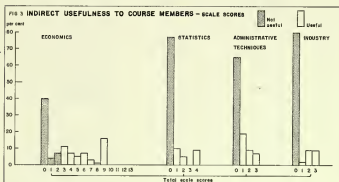
Whether subjects directly useful	Subject content of work over all posts			
	Social	Economic	Social Economic	Diplomatic and Defence
Micro-economics and Industry directly useful (Factor score 3-9)	% Base* 41 (27)	% Base* 74 (35)	% Base* 71 (35)	% Base* 44 (25)
Macro-economics directly useful (Factor score 2-7)	35 (20)	61 (28)	52 (29)	56 (23)
Statistics directly useful (Factor score 1-4)	24 (21)	48 (27)	48 (27)	23 (22)
Administrative techniques directly useful (Factor score 1-3)	41 (22)	61 (28)	54 (28)	63 (19)

* The number of informants who said their main source of knowledge of a particular subject was the CAS course.

The heading 'Defence and Diplomatic' combines two types of work experience which are both more concerned with decisions outside the normal range of social and economic policy making. It may be that this helps to explain why those whose work has lain in these areas were relatively unlikely to have found statistics as taught on the course directly useful. Administrative Techniques, on the other hand, did include items which have become more popular and widely known in, say, the Operational Research aspects of Defence management work.

4.3 Indirect Usefulness Re-examined

Using the same methods of analysis we present below (Fig.3) responses to the second main concept investigated - whether informants, regardless of the direct utility of the subject items, found them indirectly useful because they had been "helped to have more useful discussion with specialists" or because their "understanding of articles or reports had been improved" or because knowledge gained had been "of any other educational value". The factor analysis grouped all the 13 items listed under Micro and Macro economics together - that is to say thinking of all Economics items for the purposes just mentioned informants responded in very much the same way.*



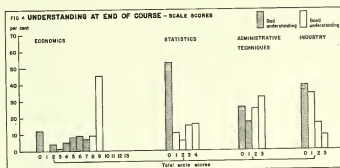
For Statistics, Administrative Techniques and Industry between 65% and 80% of students found not one item in these subject groups 'indirectly' useful in the terms proposed by the question. The main reason for this is the very large proportions of students who did not find that they 'were required to have discussions with specialists' or to 'read articles and reports' on the topics covered by the course. For such students the course subjects whilst no doubt of

* The full range of scores (0-13) for Economics is not shown in this diagram because of a restriction in the computer programme used to compute the scores.

some broad educational value was clearly thought to be of limited relevance only to their subsequent work. For subsequent analysis informants have been put into two groups for each subject: those who, relatively, found more or less indirect utility in the course topics but the cut off point is placed at a very low level. For example anybody finding 3 or more items out of the 13 listed under Economics indirectly useful has been classified as finding the whole subject group "indirectly useful".

4.4 Understanding Re-examined

On this scale too all the Macro and Micro economic items were grouped together by informants. The other subject groups remained distinct. The results of scoring all items and summarising for each of the subject groups is illustrated below (Figure 4).*



It will be seen that the summarised responses are very different for the different subject groups. Twelve percent of informants reported that for not one item of the Economics group of subjects was their understanding 'very good' or 'fairly good' at the end of the course but 53% were in this position for Statistics and smaller but still substantial groups for Administrative Techniques (26%) and Industry (39%).** At the

* See footnote for scoring of Indirect Usefulness of Economics. P.29

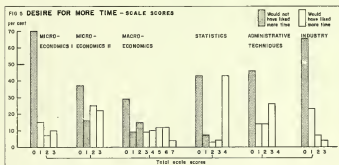
** These differences are statistically significant: Statistics v. Economics (P<.001), Statistics v. Administrative techniques (P<.01), Statistics v. Industry (P<.1). See Appendix C.

other end of the scale 45% of informants said that their understanding of Economics at the end of the course was 'very good' or 'fairly good'. Whilst such statements are hardly to be regarded as objective evidence of understanding they are of use in helping us to appreciate how informants felt about the instruction they had received at the time. It seems evident from these results that for Economics, Statistics and Administrative Techniques there were two sections amongst students one of which had not coped with the instruction given, and one which had done fairly well. The size of the sections varied with the subjects.

The relatively large proportion saying that their understanding of not one item of Statistics was 'very good' or 'fairly good' throws some light on the finding reported earlier that many had not found Statistics of any utility. Apart from procedures in the departments where informants had worked, which may not have encouraged the use of statistics, it seems that the course itself had not been very enlightening for very many course members.

4.5 'Should more time have been spent' Re-examined

In dealing with this concept it seems that informants split Micro Economics into three groups to which their attitudes were different (Fig. 5). The first group, Micro Economics I, is relatively theoretical: elasticity of supply and demand, market analysis of supply and demand, relative scarcity and opportunity costs. The second group, Micro-Economics II, appears more related to the kind of problems with which students may recognise in daily work or discussion: public utility pricing, cost benefit analysis and investment appraisal. Macro Economics remained distinct.



The proportion saying that no more time should have been spent on any item range from 70% in Micro economics I to 37% in Micro Economics II and 29% in Macro economics.* Forty-three percent said no more time for Statistics, 46% for Administrative Techniques and 66% for Industry. It was clearly fruitful to have the new subject grouping given by the factor analysis in the case of the three groups of Economic subjects. The more theoretical group of Economics items obviously roused much less interest than the other Economics groups perhaps because, after experience, its range of possible applications seems limited. For Micro economics II although an appreciable proportion (37%) said no more time should have been spent on it another large grouping (47%) would have liked more time spent on 2 or 3 items in this group. Similarly with statistics we find two large groups one of which (43%) would have liked no more time spent on any item and the other (43%) would have liked more time spent on all four items in the subject group. Something of the same sort but less marked seems true of the results for Administrative Techniques. It appears that for each of these subjects students fell into sections, more or less sharply defined, whose attitudes are very different. These results suggest that it might be more profitable not to send undifferentiated groups of students to courses but to find some way of distinguishing those for whom particular courses are likely to be more profitable from the rest. Some indication of one possible criterion for such a distinction is suggested by Table 16.

* These differences are statistically significant: Micro-economics I v. Micro-economics II $P < .001$, Micro Economics I v. Macro-Economics $P < .001$, See Appendix C.

Table 16 DESIRE FOR MORE TIME TO BE SPENT ON COURSE SUBJECTS ANALYSED BY SUBJECT CONTENT OF WORK OVER ALL POSTS

Would have liked more course time to have been spent on subjects	Subject content of work over all posts			
	Social	Economic	Social Economic	Diplomatic and Defence
Would have liked more time to have been spent on:	% Base*	% Base*	% Base*	% Base*
Micro-Economics I (Factor score 1-3)	19 (27)	47 (35)	25 (35)	18 (25)
Micro-Economics II (Factor score 2-3)	34 (27)	57 (35)	50 (35)	32 (25)
Macro-Economics (Factor score 3-7)	34 (20)	53 (28)	45 (29)	61 (23)
Statistics (Factor score 2-4)	53 (21)	60 (27)	42 (27)	32 (22)
Administrative Techniques (Factor score 1-3)	47 (22)	60 (28)	62 (28)	57 (19)
Industry (Factor score 1-3)	22 (16)	62 (13)	50 (16)	50 (13)

* The number of informants who said their main source of knowledge of a particular subject was the CAS Course.

It will be seen that for 4 out of 6 subjects those whose work has lain in the economic area were more likely than other students to have liked more time. The subject matter has a clear relevance for their work. But it seems too that those whose work had lain in the Defence and Diplomatic Services were more inclined (61%) than others to have wanted more time for Macro economics. A possible explanation may be suggested. This subject group includes National Income Accounts, Aid to Developing Countries, International Monetary Problems and so on. These are all topics which an official would be likely to need if concerned with relationships between countries or with appraising the situation in any foreign country to which he may be sent. The small proportions classified as wanting more time on Macro economics or Industry stand out amongst those whose work has been in the social departments. A conclusion from this table then, which is relevant to making training courses as useful as

possibles, might be that they are likely to be more profitable if the subject matter can be seen to be useful for the work the officers are likely to be doing subsequently. Table 17 despite the small numbers seems to illustrate this conclusion explicitly.

Table 17 DIRECT USEFULNESS OF COURSE SUBJECTS ANALYSED BY DESIRE FOR MORE TIME TO BE SPENT ON THEM

<u>Whether subject directly useful</u>	<u>Whether would have liked more course time to have been spent on subjects</u>	
	<u>Would not have liked more time</u>	<u>Would have liked more time</u>
	% Base*	% Base*
Micro-economics and industry directly useful (Factor score 3-9)	(1) 48 (58) (11) 45 (44) (111) 39 (46)	68 (25) 64 (39) 73 (37)
Macro-economics directly useful (Factor score 2-7)	(IV) 40 (35)	53 (32)
Statistics directly useful (Factor score 1-4)	(V) 24 (34)	53 (34)
Administrative techniques directly useful (Factor score 1-3)	(VI) 42 (31)	63 (38)

* The number of informants who said their main source of knowledge of a particular subject was the CAS Course.

The table shows that for all subjects those course members who had found the subject directly useful in their work also would have liked more course time to be spent on it. The result is very different from the one presented earlier where we took all course members and compared their overall responses as a group on 'usefulness' and 'wanting more time'. The more detailed analysis of this relationship made possible by the regrouping of subject items and exclusion of those whose main source of information was outside the course produces a much more useful result.

5 ATTITUDES TO CIVIL SERVICE TRAINING COURSES

5.1 Introduction

Course members' assessments of the utility of CAS course material, may be coloured by their views on the quality of CAS training and the value of such training to the Civil Service. For example, the person who believes that the administrator can learn all he needs to know from his experience in his job, may well place a low value on the type of training provided by the CAS. Similarly if he feels that the Civil Service itself is either unreceptive or unsuited to ideas gained from management training, he may tend to dispute the relevance of what he was taught for his own work situation. In this chapter we examine the opinions of course members about the quality of CAS training and the place it can hold in the Civil Service; we then go on to consider relationships between attitudes to training and to the utility of the course material. Finally we look at the relationships between attitudes to training and the work situation and other background characteristics of those who hold these attitudes.

5.2 Opinions about training

In order to investigate informants' attitudes to Civil Service training, and the CAS course we presented them with a list of statements about different aspects of the subject and asked them to indicate for each statement whether they strongly agreed, agreed on the whole, disagreed on the whole, strongly disagreed or had no opinion either way. The statements were compiled from such sources as course members' own recorded opinions about the CAS training course at the time they attended it, our own pilot survey for the present investigation, and the Fulton report; they were selected to represent a good cross section of current viewpoints. Twenty three statements were used in the course members' questionnaire (question 9), and thirteen which were not specifically concerned with the CAS course were included in the control group's questionnaire (question 7). So that informants would have the opportunity to qualify and extend their opinions they were also asked to add any other comments about Civil Service training that occurred to them, at the end of the questionnaire. Figures 6, 7 and 8 show the proportion of informants who agreed and disagreed with each attitude statement and provides a comparison between the opinions of the course members and the control group about statements which were put to both groups (for simplicity the two shades of opinion agree (disagree) strongly or on the whole are condensed into one category in these diagrams).

It needs to be said at this point that because of the marked effect that small alterations in the wording of attitude statements can have on the responses people make to them, the figures for any one statement need to be interpreted with a certain amount of caution. In the next section we shall be considering the much more reliable general attitudes (or pre-dispositions) which lie behind different groups of opinions. All we shall do here is comment briefly on the different points of view which the attitude statements revealed - rather on the level of a public opinion poll.

From an inspection of the content of the attitude statements, we can divide them into three broad groups: (1) those concerned with the CAS course itself and possible changes that might be made in it, (2) those expressing opinions about the receptiveness of the Civil Service to training and (3) those expressing opinions about the value of management training to administrators. Each of these groups will be considered in turn.

5.2 1. Opinions about the CAS course

Figure 6 shows that course members were divided about the value of CAS training and what its goals should be. Two thirds thought that the CAS course was more interesting than valuable in the Civil Service as the Civil Service is at present (item 15) and they were divided equally on the question of whether the course should be geared to the needs of a particular department or to the Civil Service as a whole (item 22). On the other hand, they generally felt that the course benefited those who went on it. Over half agreed that some of their colleagues would have greatly benefited from going on the course (item 20) and only one tenth thought that the time they personally had spent on it would have been better spent in their department (item 10). As far as the organisation of the course was concerned the majority appeared to be happy to keep things as they were when they attended it. Thus only a third would have preferred to course to have been run on a residential basis (item 1), and less than a fifth thought that it was too long (item 3) or was given at the wrong time in their careers (item 6).

To summarise, it appears that the experience of going on the CAS course is generally valued, and that course members are content with how it was organised and when it was held. But there are doubts among many about the relevance of what is taught. There is a strong body of opinion that CAS training should be tailored more closely to the needs of individual departments.

FIG. 6 ATTITUDES TO CIVIL SERVICE TRAINING

Opinions about the C.A.S. Course

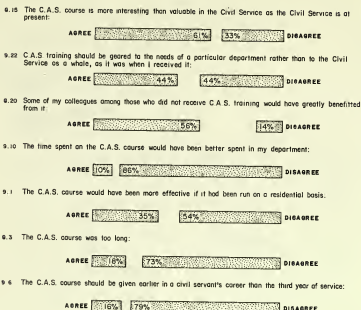
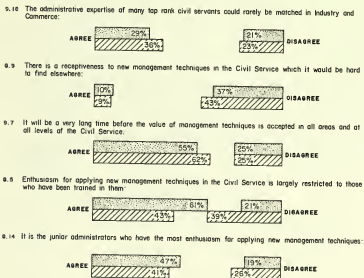


FIG. 7 ATTITUDES TO CIVIL SERVICE TRAINING

Opinions about the receptiveness of the Civil Service to C.A.S. Training



5.2 2. Opinions about the receptiveness of the Civil Service to CAS training

Largely because of their lack of experience outside the Civil Service many informants felt unable to express an opinion about the difference between it and other organisations. But Figure 7 shows that the general picture was one of uncertainty about its capabilities and of a feeling that it still had a long way to go as far as the acceptance of management techniques was concerned. Thus although 29% agreed that the administrative expertise of many top rank Civil Servants could rarely be matched in Industry or Commerce, 21% disputed this and 50% were uncertain about it (item 16). Furthermore only a tenth thought that there is a receptiveness to new management techniques in the Civil Service which it would be hard to find elsewhere (item 9); and over a half also took the somewhat pessimistic view that it will be a very long time before the value of management techniques is accepted in all areas and at all levels of the Civil Service (item 7). Possible frustration on the part of course members in trying to persuade their superiors of the value of the training they had received was shown by the fact that two thirds thought that enthusiasm for applying new management techniques in the Civil Service is largely restricted to those who have been trained in them (item 5), and 43% of the control group agreed with this. Forty-seven percent of the course members and 41% of the control group also believed that it is the junior administrators who have the greatest enthusiasm for new management techniques (item 14).

5.2 3. Opinions about the value of management training for administrators

Figure 8 shows that the value of management training was widely acknowledged by the course members and the control group. Thus two thirds of the course members, and as high a proportion as three-quarters of the control group, thought that the tasks of the Civil Service of the future is going to demand much greater specialised knowledge of management techniques (item 23); and only about a quarter of the course members and less than a fifth of the control group thought that the subjects and techniques are taught on management training courses are rarely applicable to their work (item 4). These findings suggest, rather surprisingly, that the

FIG. 8 ATTITUDES TO CIVIL SERVICE TRAINING

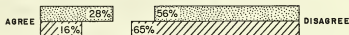
Opinions about the value of Management Training for Administrators



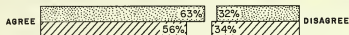
- 9.23 The tasks of the Civil Service of the future will demand that the administrators have much greater specialised knowledge of management techniques:



- 9.4 The subjects and techniques people are taught on management training courses are rarely applicable to their work:



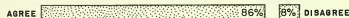
- 9.6 All administrative civil servants require specialist training if they are to do their work efficiently



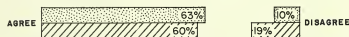
- 9.19 There should be additional courses in management for those in their 30's and 40's moving into senior administrative positions:



- 9.11 There should be refresher courses for administrators to bring them up to date in subjects that have been developed since their C.A.S. course:



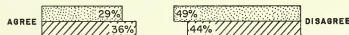
- 9.18 Greater use should be made in the Civil Service of outside training facilities:



- 9.17 The ability to get on well with other people is the most important quality of the good administrator:



- 9.12 Expertise in British politics is more important for the administrative civil servant than proficiency in management techniques:



- 9.2 An administrator learns more from his own experience and that of his colleagues than he can ever be taught in a training course:



control group were even stronger supporters of management training than the people who had actually received it. Is this because the course members' subsequent experience has disillusioned them about the possibility of applying in their work the type of material people are taught on management training courses? Perhaps because the control group were less prepared to endorse opinions which might be taken as critical of them personally the situation was reversed in relation to the belief that all administrators require specialist training if they are to do their work efficiently. This belief was held by two-thirds of the course members, but only by about half the control group (item 8). Training for senior administrators, however, received the strong support of both groups: over four-fifths thought that there should be additional management courses for people moving into senior administrative positions (item 19), and a similar proportion of the course members supported the idea of refresher courses to bring people up to date in subjects that had been developed since their CAS courses (item 11). Two thirds of both groups also thought that greater use should be made in the Civil Service of outside training facilities (item 18). In weighing training against such traditional qualities of the good administrator as political expertise, and the ability to get on with people, both groups come down in favour of the former (items 12 and 17). But on the other hand, the importance of personal experience in learning the job was stressed, particularly by the control group. Three-quarters of the control group believed that the administrator learns more from his own experience than he can ever be taught on a training course in comparison with just over half the course members (item 2).

To summarise it seems that although both the course members and the control group are supporters of management training, those who have actually received it are less convinced than the others of its applicability. In contrast, those who have not received training are far less inclined than the others to support the idea that their efficiency might be impaired in any way. As if to protect their own personal position they subscribe strongly to the view that personal experience counts more than any training course.

Bearing in mind the caution given at the beginning of this chapter about the unreliability of the response of individual attitude statements, these findings are worth considering against those on the utility of the course material presented in the previous chapters. Although support for management training and the continuance of the CAS course in the form in which course members knew it appears to be strong, there is clearly a widespread feeling, particularly among course members, that opportunities for applying what is taught are limited. This is shown further by the fact that of all the additional comments made at the end of the questionnaire by course members, the control group and superior officers, by far the most common was that CAS training is not sufficiently relevant to actual work. That most course members find little application for the course material in their work, as was shown in the last chapter, may be due not so much to its lack of relevance to what they do, but more because the way in which it can be used had not been made sufficiently clear to them.

5.3 General Attitudes

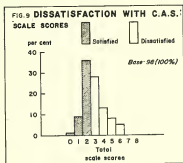
As noted in the previous section, responses to single attitude statements as guides to people's general attitudes and predispositions are notoriously unreliable because small alterations in the wording of an attitude statement can have a marked effect on the response a person gives, and this response may change between different occasions. To find out where a person stands in relation to a particular issue we need to know what his responses are to a number of statements about it, and if we can show that these responses are all related to each other we can add them together to measure the general attitude which lies behind them. In the previous section we grouped the attitude statements under three general headings on the grounds that each group seemed to be expressing opinions about the same general topic, but we had no empirical evidence that these opinions really were related. In order to find out how best to group the items to assess the informants' general attitudes, as in chapter 4, we carried out a factor analysis. This procedure enabled us to identify three groups of opinions which were relatively independent of each other and could be considered to represent three general attitudes to Civil Service Training (full technical details are given in Appendix B). These were labelled

"Dissatisfaction with CAS training", "Criticism of the Civil Service" and "Denial of the need for management training in the Civil Service". To obtain informant's scores on each of these general attitudes, we assigned a score of 1 to each opinion in the same direction as the general attitude and summed these scores across all the opinions in the group. In the remainder of this chapter we shall consider the distribution of course members' scores on these general attitudes and the relation of these attitudes to other variables.

5.3 1. Dissatisfaction with CAS training

Dissatisfaction with CAS training covered a number of opinions which were either critical of the CAS course or were against extending such training in the Civil Service.

A person with a high score on this factor would tend to agree that CAS training should be geared to the needs of a particular department rather than the Civil Service as a whole, that the CAS course was too long, that the subjects - and techniques people are taught on management training courses are rarely applicable to their work, that the time spent on the CAS course would have been better spent in their department, and that the CAS course was more interesting than valuable. They would tend to disagree that there should be refresher courses for administrators, that there should be additional courses in management for those in their 30s and 40s moving into senior administrative positions, and that some of their colleagues who did not receive CAS training would have greatly benefited from it. (See Appendix B for full details). Figure 9 shows the distribution of course members' scores on this factor.



It is notable that most course members held an intermediate position. None of them held the two top scores signifying total dissatisfaction with all aspects of CAS training and only 1% expressed opinions which were all consistently in favour of it. The two most common scores on the scale were 2 and 3 signifying two or three negative opinions about CAS training out of a possible maximum of 8. As in the previous chapter when considering the relationship of the general attitudes to other variables, we shall compare the characteristics of people with high scores with those with low scores. In this case a high score of 3 or more signifies a tendency to be dissatisfied with CAS training and a score of 2 or less signifies a tendency to be satisfied with CAS training.

Table 18 shows that course members with high and low scores on "Dissatisfaction with CAS training" differed in their views about the direct utility and indirect utility of the CAS course material. The differences in percentages in Table 18 do not reach statistical significance in all cases, but with the exception of the indirect utility of industry they do suggest a general tendency for those who were dissatisfied with the training to have been less likely than the others to have found the CAS course subjects useful either directly or indirectly in their Civil Service work. It seems possible that among some course members there may be a general attitude of dissatisfaction with CAS training which may influence their receptiveness to the individual course subjects and the extent to which they make use of them.

Table 18 USEFULNESS OF COURSE SUBJECTS ANALYSED BY DISSATISFACTION WITH CAS TRAINING

Whether subjects useful**	Dissatisfaction with CAS training			
	Satisfied with training		Dissatisfied with training	
	%	Base*	%	Base*
<u>Directly useful:</u>				
Micro-economics & Industry	64	(39)	45	(44)
Macro-economics	50	(34)	42	(33)
Statistics	52	(33)	26	(35)
Administrative Techniques	61	(28)	49	(41)
<u>Indirectly useful:</u>				
Economics	54	(37)	45	(38)
Statistics	33	(33)	14	(35)
Administrative Techniques	43	(28)	29	(41)
Industry	22	(18)	19	(26)

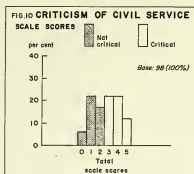
* The number of informants who said their main source of knowledge of a particular subject was the CAS course.

** See Chapter 4 for details of how these measures were derived.

5.3 2. Criticism of the Civil Service

"Criticism of the Civil Service" covered a number of opinions expressing the view that the Civil Service is not receptive to management techniques and noting a division between junior and senior administrators about the usefulness of management training. A person with a high score on this factor would tend to agree that enthusiasm for applying new management techniques is largely restricted to those who have been trained in them, that it will be a very long time before the value of management training is accepted in all areas and at all levels of the Civil Service, that it is the junior administrators who have the most enthusiasm for applying new management techniques and that greater use should be made of outside training facilities. He would tend to disagree that there is a receptiveness to Civil Service training which it would be hard to find elsewhere.

Figure 10 shows the distribution of course members' scores on this factor.

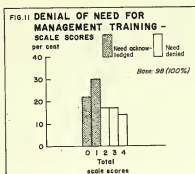


Although, as for the previous attitude, the majority of course members held an intermediate position on this attitude, higher proportions held extreme positions. Thus 12% endorsed all the opinions expressing criticism of the Civil Service and 6% rejected all of them. In view of the relationship between satisfaction with CAS training and views about the utility of the subject matter of the CAS course, it might be expected that those informants who are most critical of the Civil Service and its receptivity to management training would similarly place least value on the course material. This was not the case. There was barely any tendency for people who were critical of the Civil Service to differ from those who were not critical in their ratings of the usefulness of the CAS course subject matter.

5.3 3. Denial of the need for management training in the Civil Service

"Denial of the need for management training in the Civil Service", covered a number of opinions about the value of management training to administrators and the other qualities which an administrator needs besides management skills. A person with a high score on this factor would tend to agree that an administrator learns more from his own experience than he can ever be taught on a training course, that expertise in British politics is more important for the administrative civil servant than proficiency in management techniques. He would tend to disagree that all administrative civil servants require specialised training if they are to do their work efficiently, and that the tasks

of the Civil Service of the future will demand much greater specialised knowledge of management techniques. Figure 11 shows the distribution of informants' total scores on this factor.



Although the informants were reasonably spread over the full range of scores for this factor the majority still had low scores. Thus even though 14% had the maximum score of 4 signifying endorsement of all four opinions against management training about half had a score of 0 or 1 signifying consistent support for management training.

Table 19 shows the relationship between this general attitude and course members' views about the utility of the course material. In this case, as for dissatisfaction with CAS training, there is evidence of a small association between the two sets of attitudes. Although not all the differences in percentages in Table 19 are statistically significant there was a general tendency for more of the course members who denied the need for management training than of those who acknowledged the need for it to have found the subjects directly and indirectly useful in their Civil Service work. The only marked exception was in relation to the direct usefulness of administrative techniques for which there was no difference between the two groups of course members.

Table 19 USEFULNESS OF COURSE SUBJECTS ANALYSED BY DENIAL OF THE NEED FOR MANAGEMENT TRAINING

Whether subject useful**	Denial of the need for management training			
	Acknowledges need for training		Denies need for training	
	%	Base*	%	Base*
<u>Directly useful:</u>				
Micro-economics & Industry	59	(41)	50	(42)
Macro-economics	55	(33)	38	(34)
Statistics	54	(35)	21	(33)
Administrative techniques	54	(37)	53	(32)
<u>Indirectly useful:</u>				
Economics	62	(39)	36	(36)
Statistics	31	(35)	15	(23)
Administrative techniques	43	(37)	25	(32)
Industry	27	(22)	14	(22)

* The number of informants who said their main source of knowledge of a particular subject was the CAS course

** See chapter 4 for details of how these measures were derived.

These findings, taken together with those concerning the other general attitudes, provide further insights into the ways in which CAS training was received by early course members and in possible improvements which seem to have been required. First they suggest that it is not the way in which the course member perceives the attitude of the Civil Service towards management training which determines his own attitude to the utility of the course material. What is more important is his own attitude first towards the course itself and secondly towards the value of such training for the administrator. People who were most critical of the CAS course or who had a basically anti-training philosophy were the ones who appeared to have found the course subject matter of least use in the subsequent work.

5.4 Other characteristics of people with negative attitudes to training

We have seen that attitudes to training are related to the usefulness of some of the CAS course material even though attitudes to the Civil Service are not. In this final section we shall examine the relation between general attitudes to training and some of the other characteristics of the course members. The question we attempt to answer is what type of people are particularly critical of management training and therefore least likely to respond to the CAS courses.

Considering "Criticism of the Civil Service" first, Table 20 shows that course members who went on the later courses were more likely to be critical of the Civil Service than those who went on the earlier courses. That this is probably a product of age and experience rather than anything in the courses themselves is shown by the fact that those who had entered the administrative grade most recently or who had held the smallest number of different posts tended to be more critical of the Civil Service than those who had most experience. Whether these relationships are due to a younger generation of people being less satisfied with things as they find them or simply a growing complacency as experience increases is difficult to judge. The main conclusion to be drawn is that confidence in the ability of the Civil Service to respond to new management ideas increases the more one sees of it.

Table 20 ATTITUDES TO CIVIL SERVICE TRAINING ANALYSED BY CIVIL SERVICE WORK EXPERIENCE

Attitude adopted	Course attended		Entered Admin. class		Number of posts held	
	1-2	3-7	1959-1961	1962-1966	4-6	1-3
	%	%	%	%	%	%
Disatisfied with training	54	54	55	53	57	52
Critical of Civil Service	41	64	47	61	48	62
Denies need for management training in Civil Service	46	51	47	53	54	44
Base* (100%)	39	59	47	51	46	52

* All course members

It is notable that table 20 shows that neither the course attended nor age or experience have much relation to attitude to the CAS course or to the value of management training. When we turn to the type of work the course members have been doing, however, the situation is reversed. Table 21 shows that people who had been engaged in economic work were more likely to adopt favourable attitudes towards training than those whose main experience had been in the social or diplomatic and defence fields. (This difference has high statistical significance). On the other hand, criticism of the Civil Service was not related to the type of work done.

Table 21 ATTITUDES TO CIVIL SERVICE TRAINING ANALYSED BY SUBJECT CONTENT OF WORK OVER ALL JOBS

Attitude adopted	Social	Economic	Social/ Economic	Diplomatic & Defence
	%	%	%	%
Dissatisfied with training (Factor score 3-6)	62	35	50	64
Critical of Civil Service (Factor score 3-5)	53	55	55	50
Denies need for management training in Civil Service (Factor score 2-4)	56	45	45	61
Base*(100%)	32	40	40	28

* All course members

Table 22 extends the above finding. First, as might be expected, "Dissatisfaction with CAS training" is associated with a desire for improvements in the quality and methods of teaching on the CAS course. On the other hand, it is notable that there is no tendency for people who would like to see improvements made in this area to deny the need for management training. "Denial of the need for management training" is strongest first among people who have not received any qualification in one of the CAS course subjects before coming on the course, and secondly among those who have never referred to their CAS course notes to help them in their work since attending the course.

Table 22 ATTITUDES TO CIVIL SERVICE TRAINING ANALYSED BY ATTITUDE TO
CAS COURSE TEACHING, QUALIFICATIONS AND USE OF CAS COURSE NOTES

Attitude adopted	Whether wants improvements in quality and methods of course teaching		Whether has qualifications in course subjects		Whether has referred to CAS course notes	
	Does not want improvements	Wants improvements	Has qualifications	Does not have qualifications	Has referred to notes	Has not referred to notes
	%	%	%	%	%	%
Dissatisfied with training	39	61	52	57	52	56
Critical of Civil Service	55	55	59	52	58	52
Denies need for management training	52	48	31	56	34	60
Base* (100%)	31	67	46	52	41	57

*All course members

These findings give us the opportunity to distinguish between the types of people who are likely to respond least to CAS training. First it appears that dissatisfaction with CAS training is largely a response to the lack of relevance of the course material for the work situation. Regardless of any previous knowledge gained at University, people coming on the course from economic departments are likely to be more satisfied with the training, probably because its relevance is either obvious to them, or because the work they do subsequently is helped by the knowledge they gained from the course. Those in the social, defence or diplomatic field, however, are more likely to feel that the course has not been designed for them; they find that when they get back to their departments there are few opportunities to apply what they have learned; and their dissatisfaction is shown by their desire for changes not only in the subject matter but also in the type of teaching done.

The development of "denial of the need for management training" may be tentatively traced in a different way. Before coming on the course the students' main source of knowledge on the type of subject matter taught on it is likely to be their University course. It may be that those with qualifications in such course subjects as Economics and Statistics are most likely when they join the Civil Service to move

into departments concerned with economic rather than social subjects. When they go on the CAS course the material they are taught fits in with what they know already, and has obvious relevance for their work; they subsequently find it useful when back in their departments and refer to their course notes to help them from time to time. These are the people who are the strongest advocates of management training. But those without these characteristics, that is to say, people with an arts background leading to social, defence or diplomatic work, where little application has been found for the course material of early CAS courses are likely to be most against it. The development of this anti-training philosophy, though very much a minority view-point, would appear to present a substantial obstacle to CAS aims.

6 COURSE MEMBERS OPINIONS OF THE COURSE

6.1 Benefits gained from the course

At different points in the questionnaire course members were asked for more general opinions on the course and, where possible, comparable questions were put to members of the control group and superior officers. The most direct question was put to course members, it ran "Although many alterations have been made to the CAS course for Assistant Principals since you went on it, we would like to know what improvements you would like to have seen made to the course as it was then, and what benefits you feel you gained from it." Table 23 shows their answers.

Table 23 BENEFITS FROM THE CAS COURSE

Benefit	Course Members
Contact with other Civil Servants	48%
Intellectual stimulus, brush-up	18%
Contact with industry, overseas contacts	7%
Other	5%
Little or none	6%
No benefits mentioned	35%
Base (100%)	97

Over 40% could think of little or no benefit gained from the course and for the rest the dominating answer related not to the content of the course but to the incidental benefits of contact with other civil servants. Fewer than one in five of all course members referred to any intellectual gain.

6.2 Use of course notes

These opinions were reflected in the answers given to questions about the use made by course members of material collected during the course or supplied to them subsequently. All course members were asked "Have you ever referred to your CAS course notes to help you in your work?" Table 24 shows the subjects on which they had referred to course notes.

Table 24 USE OF CAS COURSE NOTES

Subject	Course Members
Micro-economics	26%
Macro-economics	20%
Statistics	14%
Administrative Techniques	14%
Industry	6%
Any others	1%
Has not referred to notes on any topic	59%
Base (100%)	97

A large proportion had not made subsequent use of material collected during the course. The most frequent reference, by about one quarter, was to material related to Micro Economics. Of the minorities who had referred back the greater part had done so once or twice only over the last years.

6.2 1. CAS publications

All course members had been sent copies of various CAS publications related to topics introduced during the course and substantial majorities acknowledged receiving these pamphlets. Table 25 shows what use was made of these documents.

TABLE 25. USE OF CAS PUBLICATIONS

C A S publication	Whether received publication		Base (100%)	If yes:			If read:						If of hardly any or no use: Whether publication was of any general educational value			
	Yes	No		Read	Glanced at	Whether read publication	Base (100%)	Usefulness of publication				Base (100%)	Yes	No	Base (100%)	
								Of very great use	Of great use	Of some use	Of hardly any use					Of no use
1. The design of information-processing systems for government	91	9	94	49	42	8	85	0	2	14	43	40	42	78	22	32
2. Flow charts, logical trees and algorithms for rules and regulations	94	6	93	65	28	7	86	2	9	34	23	32	56	100	0	29
3. Network analysis in forming new organisations	95	5	93	64	29	7	87	0	9	36	23	32	56	93	7	28
4. Output budgeting and the contribution of micro-economics to efficiency in government	90	10	93	58	34	7	84	8	4	33	24	31	49	88	12	25
5. Input-output analysis and its application to education and manpower planning	88	12	92	41	44	15	81	6	6	9	24	55	33	92	8	24
6. The elementary ideas of game theory	91	9	93	54	31	15	85	2	2	9	24	62	45	82	18	38
7. Statistical decision theory	87	13	94	40	41	18	82	0	3	6	41	50	32	96	4	28
8. Operational research, models and government	83	17	92	45	36	20	76	0	6	18	29	47	34	92	8	25
9. Clerical work measurement	82	18	91	40	38	22	74	0	3	20	17	60	30	82	18	22
10. Management by objectives in the Civil Service	85	15	92	64	26	10	78	2	12	40	16	30	50	91	9	23

Between 40 and 64% said they had read the publications received. But of those who had read them few had found them of great use and between 46% and 91% of the readers said that they had found them of "hardly and (or) 'no' use". These later groups were willing to concede that the publications may have been of "general educational value". But since the publications related in the main to specific techniques which the writers were expounding to possible users this seems to be a rather negative evaluation.

6.3 General comments on the course

At the end of the questionnaire course members were asked "Are there any other comments you would like to make about the CAS course as you knew it or on Civil Service training in general". The question came after the very detailed questions about the utility of the course subjects discussed earlier and the battery of opinion questions reported in the previous chapter. We have here then the responses of those informants sufficiently interested or impelled by the previous questions to give a kind of summary view of the course. The control group had been answering questions about the general subject matter of a course which they themselves had not attended but could appreciate in the light of their own civil service experience. The general sequence of questions put to them was much the same as that put to course members but the question reported below and put to them was less specific. It read "Are there any other comments you would like to make about Civil Service training?" Superior officers were asked very few other questions and the question put to them was very specific. It read "Are there any other comments you would like to make about the CAS course for Assistant Principals?" The responses to these questions are given in Table 26.

Table 26 OTHER COMMENTS ON TRAINING OR ON THE CAS COURSE

Comment	Course Members	Control Group	Senior Officers
	%	%	%
No criticism	47	36	55
Training not sufficiently relevant to actual work	29	29	27
Training is too general	11	7	7
Need more training in topics of general interest to the administrator	13	7	7
Criticisms of the balance of training as too 'Treasury' orientated	14	20	5
Criticisms relating to organisation of training	19	14	4
Criticisms of selection procedure for trainees and amount of training	6	15	0
Suggestions for mixing more with people outside the Civil Service and getting more outside experience	3	10	1
Need to train senior Civil Servants too	4	1	0
Need to train other classes of the Civil Service better	2	1	0
Need to provide a general background in a wide range of topics	8	11	2
General doubts about value or validity of training (as at present organised)	2	16	1
Others	3	5	4
Not sufficiently well acquainted with the officer concerned to comment; have seen the work of too few course attenders			12
Not sufficiently acquainted with subjects covered by the course to comment			4
Base (100%)	97	87	85

The top line records the proportions who made no critical comments, or who praised the course or made other comments on the questionnaire. Superior officers who were asked the more specific questions were least likely to produce critical comments presumably because they felt in many cases they had too little direct knowledge to do so. It was the control group, more experienced than course members and more likely to have experience in economic departments, who were most likely to make critical comments. They were of course talking about Civil Service training in general. But for all three groups the outstanding comment is to the effect that training was not sufficiently relevant to the actual work or that it was too general. The substantial criticism of the course described as 'too treasury orientated' cover comments on 'the over emphasis on management techniques' or 'too much emphasis on new or fashionable subjects or on quantitative subjects'.

The control group was more concerned than course members with selection procedures - they felt that more training was needed for people like them. Substantial proportions of course members criticised the organisation of training, particularly the stage of an individual's career at which it happens.

Since these comments were volunteered at the end of the questionnaire and substantial proportions did not respond at this point it would be wrong to give them too much emphasis. However they seem to be in line with information derived from other sections of the questionnaire.

6.4 Improvements wanted in the course

All course members were asked "Under the headings given below please write down any improvements you would like to have seen made in the course as it was when you attended". (Table 27).

Table 27 IMPROVEMENTS DESIRED IN THE COURSE

Improvements	Courses Members
<u>Subject matter</u>	
Law	7%
Administrative Techniques not mentioned in question 6	7%
Social studies	26%
Behavioural studies	5%
Administration of Government, regional problems, purposes of Government	4%
Others	11%
No improvements	55%
<u>Quality and Methods of Teaching</u>	
Criticism of quality of teaching	35%
Criticism of method of teaching	37%
Criticism of lectures being too academic, not geared enough to practical needs	12%
Others	5%
No improvements	32%
<u>Administrative Arrangements</u>	
Criticisms relating to time allowed for work	12%
Criticisms of attitude of staff	18%
Criticisms relating to location of the course, its residential nature	6%
Anything else	10%
No improvement	60%
Base (100%)	98

The majority of students did not suggest any changes in the subject matter covered. This is consistent with the finding that only a minority of students would have liked more time for the separate subject groups covered in the course. It is also consistent with the finding noted in Table 6 that a substantial minority of course members had not in the previous five years met any work situation where in their view additional knowledge of any academic or technical subjects would have been of use. It seems clear that a substantial proportion of young civil servants had not been moved by the course to any conviction that training in such subjects could improve the efficiency of their performance in day to day work.

Two thirds of all course members on the other hand had criticisms of the teaching on the course. This is perhaps the most substantial criticism of the course expressed at any stage of our enquiry.

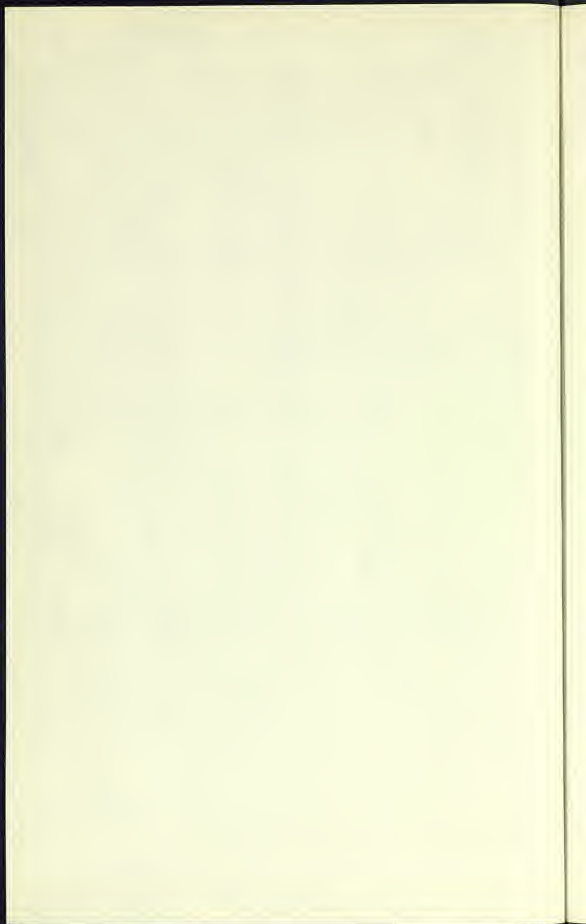
6.4 1. Quality of teaching

Two main groups of criticisms under this heading may be distinguished. The first refers to a failure on the part of the teacher to make the substance of the subject clear - simply bad teaching. In this group students said:

'More in-service lectures. At the end of my course felt I had learned about academic applications of techniques rather than the practical applications in the service. More talks about application of subjects taught in industry, local government etc.'

'Handling of statistics was appalling. Much more emphasis should be given to helping the innumerate to assess the significance of statistical results. To teach statistical techniques (so badly) was quite useless, when most of the students had no 'feel' for the figures they were working on.'

'Mr. X's statistics teaching (as opposed to Prof. Y's Maths) was very bad. He was not taking it seriously and in any case seemed to be unused to the 'classroom' teaching situation. Ditto on cost benefit analysis (Mr.Z). The macro economics and industry parts of the course seemed rather unplanned, whilst they contained much that was good, they would not have helped the steady development of knowledge for those ignorant of the subject.'





APPENDIX A

PROCEDURE

SELECTION OF INFORMANTS

The course members included in the survey were all those who had attended the first five CAS courses, and were still in the home Civil Service or in the foreign Civil Service based in this country. These courses were held during the periods: 28 October 1963 to February 1964; 24 February 1964 to 5 June 1964; 12 October 1964 to 26 February 1965; 8 March 1965 to 23 July 1965; 11 October 1965 to 25 February 1966. The course starting in 1963 lasted 14 weeks with some students taking a 7 week extension course in Economics; the other courses all lasted 20 weeks.

All the Assistant Principals attending the courses had entered the AP grade between April 1958 and December 1963. The total entry into the AP grade during this period was listed from Civil Service Commission records and those who had not gone on the first five CAS courses for APs formed the basis of the control group. Table A1 shows that the total entry for the period consisted of 120 course members and 176 controls. After excluding those people who had either left the Civil Service or the Administrative Class or who had transferred to the foreign Civil Service, and in the case of the control group, those who had gone on later CAS courses for APs, 98 course members and 98 controls were eligible for the survey. In addition 14 people in the FCO who had attended one of the first five CAS courses and were currently based in London were also included in the course members' group.

METHOD OF CONTACTING INFORMANTS

On the basis of pilot work to determine the best way of making contact with the informants the method adopted in the main survey was to send all the questionnaires for a particular department to the Principal Establishment Officer (he had previously been notified by CAS about the purpose of the survey). In the case of the superior officer's questionnaire, the relevant course member's name appeared on a tear-off slip on the envelope and the FEO was asked to address the envelope to the officer who, on the basis of his knowledge of the

type of work the course member had been doing, was in the best position to assess the usefulness of the CAS course material to him. The PEOs were asked to distribute the questionnaires to all informants in their departments, and also to complete a progress sheet giving information about the distribution dates of the questionnaires, the present whereabouts of the people who had left their departments, the names of the course members' superior officers, and all informants' telephone numbers. This information was used to check the progress of the survey and to ensure follow-up by telephone of people who had not sent in a completed questionnaire.

RESPONSE RATE AND OTHER CHARACTERISTICS OF INFORMANTS

The response rates in each department for the course members, the control group and the superior officers, are shown in Table A2. It will be seen that just under four-fifths of the course members and controls who were approached completed the questionnaire and about three-quarters of the superior officers.

Tables A3 to A8 compare the course members and the control group in terms of age, sex, grade, year of entry into grade, qualifications and training experience. Table A9 shows how informants' present departments can be grouped in terms of the subject content of their most recent job.





Table A3 AGE OF INFORMANT

Age	Course Members	Control Group
	%	%
28	6	0
29	12	0
30	23	5
31	22	8
32	20	9
33	4	17
34	5	31
35	3	14
36	2	6
37	2	6
38	0	1
39	0	1
Over 50	0	0
Total 100%	97	87

Table A4 SEX OF INFORMANT

Sex	Course Members	Control Group
	%	%
Male	92	94
Female	8	6
Total	97(100%)	87(100%)

Table A5 PRESENT GRADE

Grade	Course Members	Control Group	Superior Officers'
	%	%	%
Principal	91	90	0
Assistant Secretary	0	9	90
Under Secretary	0	1	6
HBO	1	0	0
CEO	0	0	2
Statistician	1	0	0
Other grade	7	0	0
Total (100%)	97	87	85

Table A6 LENGTH OF TIME SUPERIOR OFFICER HAS KNOWN COURSE MEMBERS

Less than 1 year	% 47
One year	33
Two years	18
Three years	1
Total (100%)	85

Table A7 YEAR OF ENTRY INTO AP AND PRESENT GRADE

Year at entry	AP grade		Present grade	
	Course Member	Control group	Course Member	Control group
	%	%	%	%
1958	0	2	-	-
1959	1	33	-	-
1960	6	37	-	-
1961	42	26	-	-
1962	20	1	0	7
1963	28	0	0	21
1964	1	0	2	31
1965	0	1	15	21
1966	1	0	42	5
1967	0	1	28	1
1968	-	-	8	2
1969	-	-	4	13
Total (100%)	97	87	97	87





APPENDIX B

TECHNICAL DETAILS AND RESULTS OF THE FACTOR ANALYSIS

PURPOSE OF FACTOR ANALYSIS

Question 6 asked the informant to rate each of 25 course topics in terms of (1) its direct usefulness in his subsequent Civil Service work; (2) its indirect usefulness in his Civil Service work; (3) his understanding of it at the time he completed the course; (4) whether more or less course time should have been spent on it. The 23 course topics (excluding two control items which were not in fact taught on the course) were themselves grouped in five broad subject areas: Micro-economics (7 topics), Statistics (4 topics), Administrative techniques (3 topics), and Industry (3 topics).

The question arises as to whether the informants themselves think of the course in this way when they are rating its content in terms of different scales, or whether they subdivide it subjectively on some other basis. Do they in fact subdivide the course at all, or simply evaluate it as one single unit of experience? For the purposes of further analysis in which we wanted to condense the course material into the smallest number of distinguishable categories, it was essential to answer this question by some empirical means. The method of analysis used was factor analysis. This statistical technique enables one to group a set of items, in such a way that all the items in any one group share more in common with each other than they do with items in other groups. Having identified these groups, summary measures can be constructed to represent the ratings of all the items in each group. These measures can then replace the whole set in further analysis.

We carried out a factor analysis on each of the four sets of ratings in Question 6 on the course members' questionnaire* and the one set of ratings of usefulness of the course material in the superior officers'

*In the case of Indirect usefulness a summary rating was used based on the three indicators of indirect usefulness: "whether knowledge of topic had helped course members to have more useful discussions with specialists," "whether knowledge of topic had improved his understanding of articles and reports", and "whether knowledge of topic had been of any other general educational value". The summary rating was obtained by scoring 1 for each of these indirect applications, which the course member endorsed and summing the 1s across the three indirect applications.

questionnaire (Question 2). We also factor analysed the responses of the course members to the 23 attitudes to training items in Question 9, and the responses of the control group to the reduced set of 13 attitudes to training items in their questionnaires (Question 7). The purpose of these latter analysis was to find, in a similar fashion, whether the informants' opinions about training were clustered in any way - in other words to find out whether their specific opinions on different topics could be considered to represent more general underlying attitudes. As noted in Chapter 5, the responses people give to individual attitude statements are notoriously unreliable, and small alterations in wording can have a marked effect on the distribution of answers obtained. The general attitude may be looked upon as a predisposition towards a subject which is far more stable than the individual opinions about it.

RESULTS

The results of a factor analysis are shown by factor loadings, each of which shows the strength of the association between an item and the hypothetical 'factor' which lies behind it. These loadings can range like correlation coefficients from -1 to +1, but for our purposes it is the size of the loading rather than its sign which has to be taken into account. What we are able to gain from the loadings is the identification of the sets of items which are most strongly related to a particular factor and consequently form a natural group. For each analysis we obtained sets of loadings for a number of factor solutions differing by the number of factors which was considered to underly the data in each case. The decision about which of these solutions was the best one was made on the basis of minimum overlapping between factors: ie the solution which was selected was the one in which the items had the least tendency to have high factor loadings on more than one factor. Tables B.1 and B.2 show the factor loadings for the best solution in each analysis.

The factor analysis of the four parts of Question 6 gives some most useful insights into the ways in which the course members see the course. It can be seen from Table B.1 that in the case of 'direct usefulness' the course divides into four sections: Micro-economics and Industry, Macro-economics, Statistics, and Administrative Techniques. This shows that as far as the course members are concerned Micro-economics has more in common with Industry in terms of 'direct usefulness' than it has with any other subject including Macro-economics.

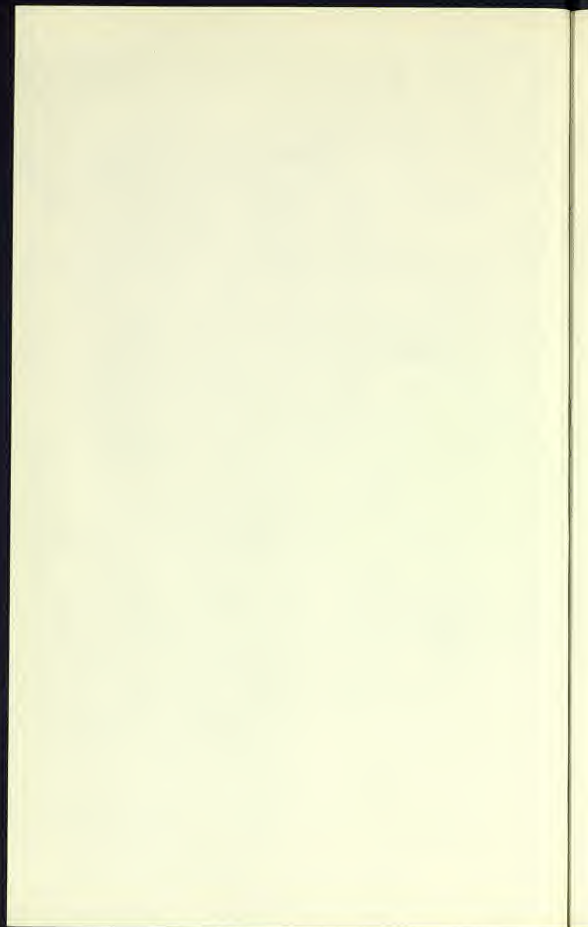




TABLE 8.2. FACTOR ANALYSIS OF ATTITUDES TO TRAINING (Question 9)

	COURSE MEMBERS										CONTROL GROUP		
	I	II	III	IV	I	II	III	IV	I	II	I	II	III
(1) The CAS course would have been more effective if it had been run on a residential basis.					04	09	03	56			27	-39	08
(2) An administrator learns more from his own experience and that of his colleagues than he can ever be taught in a training course.					37	15	46	01					
(3) The CAS course was too long.					70	14	-05	24					
(4) The subjects and techniques people are taught on management training courses are rarely applicable to their work.					67	12	04	-15			72	22	18
(5) Enthusiasm for applying new management techniques in the Civil Service is largely restricted to those who have been trained in them.					03	67	14	-08			-19	54	14
(6) The CAS course should be given earlier in a Civil Servant's career than the third year of service.					35	-21	-48	-31					
(7) It will be a very long time before the value of management techniques is accepted in all areas and at all levels of the Civil Service.					07	62	-08	-23			24	71	09
(8) All administrative Civil Servants require specialist training if they are to do their work efficiently.					-19	00	69	-09			-14	51	-23
(9) There is a receptiveness of new management techniques in the Civil Service which it would be hard to find elsewhere.					04	62	-01	02			-18	-47	26
(10) The time spent on the CAS course would have been better spent in my department.					79	-09	01	23					
(11) There should be refresher courses for administrators to bring them up to date in subjects that have been developed since their CAS course.					-75	-03	-07	10					
(12) Expertise in British politics is more important for the administrative Civil Servant than proficiency in management techniques.					19	02	61	-15			09	-08	62
(13) The CAS course should be given later in a Civil Servant's career than the third year of service.					02	33	32	31					
(14) It is the junior administrators who have the most enthusiasm for applying new management techniques.					16	48	-12	20			-21	63	29
(15) The CAS course is more interesting than valuable in the Civil Service as the Civil Service is at present.					58	36	08	-06					
(16) The administrative expertise of many top rank Civil Servants could rarely be matched in industry and Commerce.					12	-31	10	-12			-17	-55	35
(17) The ability to get on well with other people is the most important quality of the good administrator.					03	-23	17	73			18	01	70
(18) Greater use should be made in the Civil Service of outside training facilities.					-30	42	-21	-01			-51	09	30
(19) There should be additional courses in management for those in their 30's and 40's moving into senior administrative positions.					-57	14	-22	22			-80	09	-06
(20) Some of my colleagues among those who did not receive CAS training would have greatly benefited from it.					-80	11	-06	05					
(21) The same personal qualities are required of the man at the top, whether he is running an industrial organisation, a bank or a Ministry.					-05	-03	-21	50					
(22) CAS training should be geared to the needs of a particular department, rather than to the Civil Service as a whole as it was when I received it.					65	12	-43	18					
(23) The tasks of the Civil Service of the future will demand that the administrators have much greater specialised knowledge of management techniques.					12	21	-71	04			-60	05	-22

Note: (1) Decimal points are omitted.

(2) All factor loadings > 0.05 are underlined.

management techniques in the Civil Service is largely restricted to those who have been trained in them." "It will be a very long time before the value of management techniques is accepted in all areas and at all levels of the Civil Service"). Measured in a negative direction this factor was labelled "Criticism of the Civil Service". The third attitude area was concerned with opinions about the need for management training in the Civil Service (eg "An administrator learns more from his own experience and that of his colleagues than he can ever be taught in a training course." "All administrators require specialist training if they are to do their work efficiently"). This factor was labelled "Denial of need for management training in the Civil Service."

The last two of these attitude factors could similarly be identified in the factor analysis of the control group's opinions about training. But as the control group were not included in the further analysis no attempt was made to construct summary measures to represent them.

MEASURING THE FACTORS

Having identified the different subject areas of the course for the different types of rating, and the general attitudes towards training, the next step was to obtain a score to represent each of them. This was achieved by first dividing in two all of the rating scales in each set at the point at which the informants were most generally divided 50-50, and then assigning a score of 1 to an informant whose answer placed him in the top half of the scale and a score of 0 to an informant whose answer placed him in the bottom half of the scale. An individual's score for the whole set of items in a particular area was then simply obtained by adding together the scores of 1 which he had received. Thus in the case of the attitude area Direct usefulness of Micro-economics and Industry comprising usefulness ratings on nine course topics, the midpoint of the rating scales was found to lie most generally between 'of some use' and 'of hardly any use'. An informant thus scored 1 for each course topic which he considered to be 'Of very great use', 'Of great use' or 'Of some use', and a score of 0 for each topic which he considered to be 'Of hardly any use', or 'Of no use'. His total score for the whole set of terms thus fell somewhere between 0 and 9.

Having obtained a composite score for each attitude area, the final step for the purposes of further analysis was to divide the composite rating

itself into two halves. This was done again by dividing the scale at the point where the informants were most nearly split 50-50. By dichotomising the total score in this way we were able to distinguish between a generally favourable view (high score) and a generally unfavourable view (low score); and those informants with high scores would then be examined in terms of their other characteristics. We could thus see, for example, whether people with a general tendency to have found Macro-economics directly useful were any more likely than others to be engaged in particular types of Civil Service work.

The full scoring procedure for the three attitudes to training factors is shown on the following pages.

Dissatisfaction with CAS training

Items in scale: that CAS training should be geared to the needs of a particular department rather than to the Civil Service as a whole, as it was when I received it (agree/can't decide)(22); that the CAS course was too long (agree/can't decide); (4) The subjects and techniques people are taught on management training courses are rarely applicable to their work (agree/can't decide); (10) The time spent on the CAS course would have been better spent in my department (agree/can't decide); (11) There should be refresher courses for administrators to bring them up to date in subjects that have been developed since their CAS course (disagree/can't decide); (15) The CAS course is more interesting than valuable in the Civil Service as the Civil Service is at present (agree); (19) There should be additional courses in management for those in their 30's and 40's moving into senior administrative positions (disagree/can't decide); (20) Some of my colleagues among those who did not receive CAS training would have greatly benefited from it (disagree). Total scale score is obtained for an individual by assigning a score of 1 to the answer in brackets after each item, and summing these scores over all the items in the scale.

<u>Total scale score</u>	<u>Proportion of sample</u>			
	<u>with each scale score</u>			
	%			
0	1	}	46%	Satisfied with training
1	9			
2	36			
3	28			
4	13	}	54%	Dissatisfied with training
5	8			
6	5			
7	0			
8	0	}		
	0			
Number in sample 98 (100%)				

Total scale score is obtained for an individual by assigning a score of 1 to the answer in brackets after each item, and summing these scores over all the items in the scale.

Criticism of the Civil Service

Items in scale: Q.9a(5) Enthusiasm for applying new management techniques in the Civil Service in largely restricted to those who have been trained in them (agree); (7) It will be a very long time before the value of management techniques is accepted in all areas and at all levels of the Civil Service (agree); (9) There is a receptiveness to new management techniques in the Civil Service which it would be hard to find elsewhere (disagree); (14) It is the junior administrators who have the most enthusiasm for applying new management techniques (agree); (18) Greater use should be made in the Civil Service of outside training facilities (agree).

Total scale score is obtained for an individual by assigning a score of 1 to the answer in brackets after each item, and summing these scores over all the items in the scale.

<u>Total scale score</u>	<u>Proportion of sample</u>		
	<u>with each scale score</u>		
	%		
0	6	}	45% Not critical of Civil Service
1	22		
2	17		
3	22	}	56% Critical of Civil Service
4	22		
5	12		

Number in sample 98 (100%)

Denial of need for management training in Civil Service

Items in scale: Q.9a (2) An administrator learns more from his own experience and that of his colleagues than he can ever be taught in a training course (agree); (8) All administrative Civil Servants require specialist training if they are to do their work efficiently (disagree/can't decide); (12) Expertise in British politics is more important for the administrative civil servant than proficiency in management techniques (agree/can't decide); (23) The tasks of the Civil Service of the future will demand that the administrators have much greater specialised knowledge of management techniques (disagree/can't decide).

Total scale score is obtained for an individual by assigning a score of 1 to the answer in brackets after each item and summing these scores over all the items in the scale.

<u>Total scale scores</u>	<u>Proportion of sample</u>			
	<u>with each scale score</u>			
	%			
0	22	}	52%	Acknowledge need for management training in Civil Service
1	30			
2	17	}	49%	Deny need for management training in Civil Service
3	17			
4	14			
Number in sample 98 (100%)				

APPENDIX C

STATISTICAL SIGNIFICANCE OF DIFFERENCES BETWEEN PERCENTAGES

The table below will help readers to get a rough idea of the statistical significance of the difference between percentages in the tables presented in the report.

To use table to assess the significance of the difference between two percentages eg 30% (33) and 50% (52) take mean of sample sizes ie $\frac{33 + 52}{2} = 43$, subtract one percentage from the other ie 20% and find

significance level of this difference in 41-50 line of the table is for this difference P<.1. The P values show the probability of the difference occurring by chance alone. Thus P<.1 shows that the probability of the difference occurring by chance is less than 1 in 10, P<.05, less than 1 in 20. P<.01, less than 1 in 100 and P<.001 less than 1 in 1000.

Sample sizes on which percentages are based	P<.1	P<.05	P<.01	P<.001
10* - 20	30%	35%	43%	48%
21* - 30	24%	29%	36%	43%
31* - 40	20%	24%	31%	37%
41* - 50	17%	21%	27%	33%
51* - 60	16%	19%	25%	30%
61* - 70	15%	17%	23%	28%
71* - 80	14%	16%	22%	27%
81* - 90	13%	15%	21%	25%
91* - 100	12%	14%	19%	24%
97**	12%	14%	18%	23%

* Sample size on which significance test is based

** Maximum sample size

Note Percentages in table are taken as differences from 50% in one sample and therefore represent the upper limit of the percentage difference for different significance levels. eg if percentage in one sample was not 50% but 40% and if other percentage was less than 40% the difference between it and the percentage in the other sample would be slightly less than the one given in the table for each significance level.

SIGNIFICANCE OF BIGGEST DIFFERENCES IN PERCENTAGES IN TABLES PRESENTED
IN CHAPTERS 4 AND 5.

Table 14	line 1	P<.001
	line 2	No significant difference
	line 3	P<.01
	line 4	Just below significance
Table 15	line 1	P<.01
	line 2	P<.1
	line 3	P<.1
	line 4	Just below significance
Table 16	line 1	P<.05
	line 2	P<.05
	line 3	P<.1
	line 4	P<.1
	line 5	Just below significance
	line 6	P .001
Table 17	line 1	P<.1
	line 2	P<.1
	line 3	P<.01
	line 4	No significant difference
	line 5	P<.05
	line 6	P<.1
Table 18	line 1	P<.1
	line 2	Just below significance
	line 3	P<.5
	line 4	Just below significance
	line 5	No significant difference
	line 6	P<.1
	line 7	Just below significance
	line 8	Just below significance
Table 19	line 1	No significant difference
	line 2	Just below significance
	line 3	P<.05
	line 4	No significant difference
	line 5	P<.01
	line 6	Just below significance
	line 7	Just below significance
	line 8	No significant difference
Table 20	line 1	No significant difference
	line 2	P<.05
	line 3	No significant difference
Table 21	line 1	P<.05
	line 2	No significant difference
	line 3	No significant difference
Table 22	line 1	P<.05
	line 2	No significant difference
	line 3	P<.05



(COURSE MEMBERS AND CONTROL GROUP)

Q1 and Q2/S458

Serial Number _____

AN ENQUIRY CARRIED OUT BY THE GOVERNMENT SOCIAL SURVEY
FOR THE CIVIL SERVICE DEPARTMENT

Please insert the date you
received the questionnaire
here 1969

Please insert the date you
despatched the questionnaire
here 1969

GOVERNMENT SOCIAL SURVEY DEPARTMENT
ATLANTIC HOUSE RH 44
HOLBORN VIADUCT
LONDON E.C.1

01-405 1705 Ext.31

(COURSE MEMBERS AND CONTROL GROUP)

SOME POINTS TO REMEMBER
WHEN YOU FILL IN THIS QUESTIONNAIRE

So that your answers are in a form which will enable us to process them quickly, please bear the following points in mind when completing the questionnaire.

1. Please read carefully each individual question and its instructions to determine exactly what is required before you attempt to answer it.
2. Ensure that any figures you insert are clear and easy to read.
3. Where you have to put a ring round a number in answer to a question, see that your ring circles ONLY the number relating to your answer.
4. Where you are asked to place your answer inside a box, please ensure that the answer is actually inside it.
5. If you do not know the answer to a particular question or are unsure of your opinions always ring the code number indicating 'don't know' or 'no opinion', or if no such code is given write in your response. PLEASE DO NOT LEAVE ANY QUESTION UNANSWERED.

We are interested only in your personal views so PLEASE DO NOT DISCUSS THE QUESTIONS WITH ANYBODY ELSE.

(COURSE MEMBERS AND CONTROL GROUP)

1. CLASSIFICATION DETAILS

LEAVE BLANK	AGE (IN YEARS) Write in here _____		
	SEX	RING THE RELEVANT CATEGORY Male ....1... Female ..2...	YEAR OF ENTRY INTO PRESENT GRADE Write in here _____ 19
			YEAR OF ENTRY INTO ASSISTANT PRINCIPAL GRADE Write in here _____ 19
ALL QUALIFICATIONS OBTAINED SINCE REACHING THE AGE OF 18 Degrees (Including Higher Degrees)			
	Name of degree(s) (eg BA, PhD)	Main subjects	University
	1.		
	2.		
	3.		
All other degrees, diplomas, associateships or other professional or vocational qualifications.			
	Name of qualification(s) (WRITE IN BELOW)	Main subjects (WRITE IN BELOW)	Institution awarding qualification (WRITE IN BELOW)
	1.		
	2.		
	3.		
	4.		
	5.		
	6.		

(COURSE MEMBERS AND CONTROL GROUP)

2. TRAINING

In the table below please provide the following details of any courses you have attended since leaving school.

(a) Name of course.

"COURSES" INCLUDES UNIVERSITY COURSES FOR FIRST DEGREES, SECOND DEGREES AND DIPLOMAS, TRAINING COURSES OUTSIDE CIVIL SERVICE (INCLUDING TRAINING COURSES FOR PROFESSIONAL QUALIFICATIONS), CIVIL SERVICE TRAINING COURSES (INCLUDING DEPARTMENTAL TRAINING COURSES). EXCLUDE RECREATIONAL AND LEISURE COURSES, CORRESPONDENCE COURSES, AND COURSES OF LESS THAN ONE WEEK.

(b) Institution holding course (ie providing the instruction).

(c) Whether course was full-time or part-time, and if full-time how long it lasted.

LEAVE BLANK	(a) Name of course	(b) Institution holding course	(c) Time spent on course				
			RING THE CATEGORY WHICH APPLIES	If Full-time (2) Time course lasted			
				Full- time	Part- time	Years	Months Weeks
	1.		..2..	..1..			
	2.		..2..	..1..			
	3.		..2..	..1..			
	4.		..2..	..1..			
	5.		..2..	..1..			
	6.		..2..	..1..			
	7.		..2..	..1..			
	8.		..2..	..1..			
	9.		..2..	..1..			

(COURSE MEMBERS AND CONTROL GROUP)

3. CAREER IN LAST 5 YEARS/SINCE C.A.S. COURSE

In the table below could you please supply the following details about all different posts you have held, including your present one, in the last five years.

(DO NOT INCLUDE ANY TRAINING COURSES UNDER POSTS HELD, LIST POSTS IN CHRONOLOGICAL ORDER,

(a) The main subject content of your work.

DESCRIBE BRIEFLY THE SUBJECT CONTENT OF YOUR WORK IN EACH POST AND CODE IT BY ALSO WRITING IN THE NUMBER(S) CORRESPONDING TO ANY OF THE FOLLOWING CATEGORIES THAT APPLY.

	Code
Social	1
Economic	2
Social and Economic	3
Defence	4
Other	5

Post	(a) Main subject content of work		(b) Main responsibilities	
	DESCRIPTION	CODE(S)	DESCRIPTION	CODE(S)
1.				
2.				
3.				
4.				

(COURSE MEMBERS AND CONTROL GROUP)

(b) Your main responsibilities.

DESCRIBE BRIEFLY YOUR MAIN RESPONSIBILITIES AND CODE THEM BY ALSO WRITING IN THE NUMBER(S) CORRESPONDING TO ANY OF THE FOLLOWING FULTON CATEGORIES THAT APPLY.

	Code
Forecasting expenditure	1
Exercising financial and other control over the work of Departments, including the work of government architects, engineers and other specialists	2
Reviewing the investment programmes of the nationalised industries ...	3
Recommending, or advising on, new policies and policy options and writing the appropriate papers	4
Preparing legislation in consultation with members of the legal class ...	5
Negotiating with local authorities, nationalised industries, private industry and members of the public on matters concerning the operation of existing government policies and on new policies and regulations ...	6
Preparing explanatory briefs on current policy	7
Preparing material for Ministerial speeches	8
Preparing answers to Parliamentary Questions and to letters from M.P.s, etc.	9
Making decisions on individual casework arising from legislation	10
Acting as chairman and secretaries of, and representatives on, Departmental and Inter-Departmental Committees	11
Directing and operating Establishments Divisions	12
Managing large blocks of staff	13
Other	14

(c) Your grade on entering the post.

(d) The department in which you held the post (as it was named then).

(e) The length of time for which you held the post.

(c) Grade (RING THE CATEGORY WHICH APPLIES)	(d) Name of Department (WRITE IN)	(e) Length of time for which post held	
		Years	Months
Principal 1 Assistant Principal ... 2 Other (Write in below), 3			
Principal 1 Assistant Principal ... 2 Other (Write in below), 3			
Principal 1 Assistant Principal ... 2 Other (Write in below), 3			
Principal 1 Assistant Principal ... 2 Other (Write in below), 3			

(COURSE MEMBERS AND CONTROL GROUP)

4. WORK SITUATIONS FOR WHICH ADDITIONAL KNOWLEDGE WOULD HAVE BEEN USEFUL.
While holding any of the posts you have described in the previous question, have you encountered any work situation where additional knowledge of any academic or technical subjects would have been useful? In the table below:

- (a) Ring the code numbers corresponding to the subjects for which you would have found additional knowledge useful and write in any other subjects.

IF THERE ARE NO SUBJECTS FOR WHICH ADDITIONAL KNOWLEDGE WOULD HAVE BEEN USEFUL RING 'X' AT THE BOTTOM OF THE TABLE.

- (b) For each of the subjects you have specified in part (a) give an example of a work situation in which additional knowledge of the subject would have been useful.

LEAVE BLANK	Subject	(a) RING ALL THAT APPLY	(b) Work situation in which additional knowledge would have been useful.
	Micro-economics	1	
	Macro-economics	2	
	Statistics	3	
	Administrative tech- niques*	4	
	Industry*	5	
	Sociology	6	
	Social Administration ...	7	
	Other Subjects	8	
	(WRITE IN BELOW)		
	None at all	X	

* ADMINISTRATIVE TECHNIQUES INCLUDES LINEAR PROGRAMMING, NETWORK ANALYSIS, USE OF COMPUTERS, MANAGEMENT BY OBJECTIVES.

INDUSTRY INCLUDES INDUSTRIAL STRUCTURE OF THE U.K., INTERPRETATION OF COMPANY ACCOUNTS, FUNCTIONAL OPERATIONS OF INDUSTRY.

(COURSE MEMBERS AND CONTROL GROUP)

5. SOURCES OF KNOWLEDGE

The civil servant gains the knowledge he requires to do his Civil Service work from a number of different sources. How did you acquire your existing knowledge of each of the subjects shown in the table below? For each subject:

- (a) Ring the code numbers corresponding to your sources of knowledge of each subject.
- (b) Write in the code number corresponding to the most important source of your knowledge of each subject.

IF YOU HAVE NO KNOWLEDGE OF ANY PARTICULAR SUBJECT, RING 'X'
AT THE BOTTOM OF THE TABLE.

Source of knowledge	Micro- economics (RING ALL THAT APPLY)	Macro- economics (RING ALL THAT APPLY)	Statistics (RING ALL THAT APPLY)	Administra- tive Techniques (RING ALL THAT APPLY)	Industry (RING ALL THAT APPLY)	Social Administra- tion (RING ALL THAT APPLY)	Sociology (RING ALL THAT APPLY)
(a) University first degree course	1	1	1	1	1	1	1
University higher degree or diploma course	2	2	2	2	2	2	2
C.A.S. course for A.Ps	3	3	3	3	3	3	3
Departmental course	4	4	4	4	4	4	4
Civil Service course other than C.A.S. course for A.Ps or departmental course	5	5	5	5	5	5	5
Course outside Civil Service (eg pro- fessional training)	6	6	6	6	6	6	6
Books and articles	7	7	7	7	7	7	7
Professional contacts with other civil servants	8	8	8	8	8	8	8
Contact with specialists outside the Civil Service	9	9	9	9	9	9	9
Any other major sources of knowledge (RING CODE AND WRITE IN BELOW)	10	10	10	10	10	10	10
(b) Most important source of knowledge WRITE IN CODE NUMBER							
No knowledge of this subject	X	X	X	X	X	X	X

(CONTROL GROUP ONLY)

6. THE C.A.S. COURSE SUBJECT MATTER

In the table below a list of topics taught on the C.A.S. course is shown. On the basis of your own work experience in the Civil Service would you please indicate how useful you think knowledge of each of these topics might be to the administrative civil servant.

USEFULNESS SHOULD BE INTERPRETED TO MEAN THE EXTENT TO WHICH KNOWLEDGE OF THE TOPIC IS DIRECTLY APPLICABLE IN THE ADMINISTRATIVE CIVIL SERVANT'S WORK. TO INDICATE HOW USEFUL KNOWLEDGE OF EACH TOPIC IS RING THE NUMBER BELOW THE CATEGORY OF USEFULNESS YOU SELECT IN EACH CASE. IF YOU HAVE LITTLE OR NO DETAILED KNOWLEDGE OF ANY PARTICULAR TOPIC, PLEASE RING X ON THE RIGHT HAND SIDE OF THE TABLE.

C.A.S. course topic	Usefulness of topic to the administrative civil servant. (RING ONE CATEGORY ONLY ON EACH LINE)					
	Of very great use	Of great use	Of some use	Of hardly any use	Of no use	Little or no detailed knowledge of this topic
<u>MICRO-ECONOMICS</u>						
1. Relative scarcity and opportunity cost	5	4	3	2	1	X
2. Market analysis of supply and demand	5	4	3	2	1	X
3. Elasticity of demand and supply	5	4	3	2	1	X
4. Public utility and pricing	5	4	3	2	1	X
5. Cost benefit analysis	5	4	3	2	1	X
6. Investment appraisal	5	4	3	2	1	X

(CONTROL GROUP ONLY)

C.A.S. course topic	Usefulness of topic to the administrative civil servant.					
	RING ONE CATEGORY ONLY ON EACH LINE					
	Of very great use	Of great use	Of some use	Of hardly any use	Of no use	Little or no detailed knowledge of this topic
<u>MACRO-ECONOMICS</u>						
7. National income accounts	5	4	3	2	1	X
8. The basic Keynesian model of the economy	5	4	3	2	1	X
9. Forward economic projections	5	4	3	2	1	X
10. Determinants of economic growth	5	4	3	2	1	X
11. Balance of payments	5	4	3	2	1	X
12. International monetary problems	5	4	3	2	1	X
13. Aid to developing countries	5	4	3	2	1	X
<u>STATISTICS</u>						
14. Frequency distributions	5	4	3	2	1	X
15. Index numbers	5	4	3	2	1	X
16. Time series	5	4	3	2	1	X
17. Correlation	5	4	3	2	1	X
<u>ADMINISTRATIVE TECHNIQUES</u>						
18. Linear programming	5	4	3	2	1	X
19. Network analysis (P.E.R.T.)	5	4	3	2	1	X
20. Use of computers	5	4	3	2	1	X
<u>INDUSTRY</u>						
21. Industrial structure of the U.K.	5	4	3	2	1	X
22. Interpretation of company accounts	5	4	3	2	1	X
23. Functional oper- ations of industry	5	4	3	2	1	X

(COURSE MEMBERS ONLY)

6. SUBJECT MATTER OF C.A.S. COURSE FOR ASSISTANT PRINCIPALS

In the table below a list of topics taught on the C.A.S. course is shown. Regardless of whether your knowledge of the topic was gained from the C.A.S. course or not, please indicate by ringing the appropriate category:

- (a) How useful your knowledge of the topic has proved to be in your Civil Service work since attending the C.A.S. course.

USEFULNESS SHOULD BE INTERPRETED TO MEAN THE EXTENT TO WHICH KNOWLEDGE OF THE TOPIC HAS BEEN DIRECTLY APPLICABLE IN YOUR CIVIL SERVICE WORK.

- (b) Whether your knowledge of the topic has helped you to have more useful discussions with specialists on the topic inside or outside the Civil Service since attending the C.A.S. course.

C. A. S. COURSE TOPIC	DIRECT APPLICABILITY OF KNOWLEDGE					INDIRECT APPLICABILITY OF				
	(a) Usefulness in your Civil Service work since attending the C.A.S. course (RING ONE CATEGORY ONLY)					(b) Whether knowledge of topic has helped you to have more useful discussions with specialists on the topic inside or outside the Civil Service			(c) Whether knowledge of topic has improved your understanding of articles and reports on the topic	
	Of very great use	Of great use	Of some use	Of hardly any use	Of no use	Yes	No	Am not required to have discussions with specialists	Yes	No
MICRO-ECONOMICS										
(1) Relative scarcity and opportunity cost	5	4	3	2	1	3	2	1	3	2
(2) Market analysis of supply and demand	5	4	3	2	1	3	2	1	3	2
(3) Elasticity of demand and supply	5	4	3	2	1	3	2	1	3	2
(4) Public utility pricing	5	4	3	2	1	3	2	1	3	2
(5) Cost benefit analysis	5	4	3	2	1	3	2	1	3	2
Investment appraisal	5	4	3	2	1	3	2	1	3	2
MACRO-ECONOMICS										
(7) National income accounts	5	4	3	2	1	3	2	1	3	2
(8) The basic Keynesian model of the economy	5	4	3	2	1	3	2	1	3	2
(9) Forward economic projections	5	4	3	2	1	3	2	1	3	2
(10) Determinants of economic growth	5	4	3	2	1	3	2	1	3	2
(11) Balance of payments	5	4	3	2	1	3	2	1	3	2
(12) International monetary problems	5	4	3	2	1	3	2	1	3	2
(13) Aid to developing countries	5	4	3	2	1	3	2	1	3	2

(C) Whether your knowledge of the topic has improved your understanding of articles and reports on the topic since attending the C.A.S. course.

(e) How good your understanding of the topic was at the time you completed the C.A.S. course.

(f) Whether more or less time could have been spent on the topic at the C.A.S. course.

IF YOU DO NOT KNOW HOW MUCH TIME WAS SPENT ON A PARTICULAR TOPIC BECAUSE YOU DID NOT ATTEND THE C.A.S. LECTURE(S) ON IT OR DO NOT REMEMBER ATTENDING A LECTURE ON IT, RING 'X'.

[illegible]

(COURSE MEMBERS ONLY)

C. A. S. COURSE TOPIC	DIRECT APPLICABILITY OF KNOWLEDGE					INDIRECT APPLICABILITY OF			INDIRECT APPLICABILITY OF		
	(a) Usefulness in your Civil Service work since attending the C.A.S. course (KIND ONE CATEGORY ONLY)					(b) Whether knowledge of topic has helped you to have more useful discussions with specialists on the topic inside or outside the Civil Service			(c) Whether knowledge of topic has improved your understanding of articles and reports on the topic		
	Of very great use	Of great use	Of some use	Of hardly any use	Of no use	Yes	No	Is not required to have discussions with specialists	Yes	No	Am not req'd to read articles and reports
<u>STATISTICS</u>											
(14) Frequency distributions	5	4	3	2	1	3	2	1	3	2	1
(15) Index numbers	5	4	3	2	1	3	2	1	3	2	1
(16) Time series	5	4	3	2	1	3	2	1	3	2	1
(17) Correlation	5	4	3	2	1	3	2	1	3	2	1
(18) Stochastic Processes	5	4	3	2	1	3	2	1	3	2	1
<u>ADMINISTRATIVE TECHNIQUES</u>											
(19) Linear programming	5	4	3	2	1	3	2	1	3	2	1
(20) Network analysis (P.E.R.T.)	5	4	3	2	1	3	2	1	3	2	1
(21) Use of computers	5	4	3	2	1	3	2	1	3	2	1
(22) Management by objectives	5	4	3	2	1	3	2	1	3	2	1
<u>INDUSTRY</u>											
(23) Industrial structure of the U.K.	5	4	3	2	1	3	2	1	3	2	1
(24) Interpretation of company accounts	5	4	3	2	1	3	2	1	3	2	1
(25) Functional operations of industry	5	4	3	2	1	3	2	1	3	2	1

(COURSE MEMBERS ONLY)

[illegible]

(COURSE MEMBERS ONLY)

7. THE C.A.S. COURSE

Although many alterations have been made to the C.A.S. course for Assistant Principals since you went on it, we would like to know what improvements you would like to have seen made to the course as it was then, and what benefits you feel you gained from it.

(a) Under the headings given below, please write down any improvements you would like to have seen made to the course as it was when you attended it.

Subject matter

LEAVE
BLANK

Quality and methods of teaching

Administrative arrangements

Any other aspect of the course

(COURSE MEMBERS ONLY)

- (b) What benefits did you gain from the C.A.S. course?
(WRITE IN BELOW)

LEAVE
BLANK

- (c) Have you ever referred to your C.A.S. course notes to help you in your work?

RING ONE

Yes.....2

No.....1

↓
IF YES Which C.A.S. course subjects have you referred to in your notes and approximately how many times have you referred (for each subject).

LEAVE BLANK	C.A.S. course subject (WRITE IN BELOW)	Number of times referred to notes (WRITE IN)

(COURSE MEMBERS ONLY)

8. C.A.S. PUBLICATIONS

We would like to know whether C.A.S. publications are read by people who attend the C.A.S. courses, and how useful they are to them in their work. In the table below please indicate:

(a) Whether you have received each of the publications listed.

(b) Whether you have read the publications you have received.

C.A.S. Publication	(a) Whether received publication (RING ONE)		If Yes: (2) at: (2) (b) Whether read publication (RING ONE)		
	Yes	No	Read	Glanced at	Not opened
1. The design of information-processing systems for government	... 2 ...	... 1 ...	... 3 ...	... 2 ...	... 1 ...
2. Flow-charts, logical trees and algorithms for rules and regulations	... 2 ...	... 1 ...	... 3 ...	... 2 ...	... 1 ...
3. Network analysis in forming new organisations	... 2 ...	... 1 ...	... 3 ...	... 2 ...	... 1 ...
4. Output budgeting and the contribution of micro-economics to efficiency in government	... 2 ...	... 1 ...	... 3 ...	... 2 ...	... 1 ...
5. Input-output analysis and its application to education and manpower planning	... 2 ...	... 1 ...	... 3 ...	... 2 ...	... 1 ...
6. The elementary ideas of game theory	... 2 ...	... 1 ...	... 3 ...	... 2 ...	... 1 ...
7. Statistical decision theory	... 2 ...	... 1 ...	... 3 ...	... 2 ...	... 1 ...
8. Operational research, models and government	... 2 ...	... 1 ...	... 3 ...	... 2 ...	... 1 ...
9. Clerical work measurement	... 2 ...	... 1 ...	... 3 ...	... 2 ...	... 1 ...
10. Management by objectives in the Civil Service	... 2 ...	... 1 ...	... 3 ...	... 2 ...	... 1 ...

(c) How useful each of the publications you have read has been to you in your Civil Service work.

(d) Whether publications which were of little or no use in your Civil Service work were of any general educational value to you.

[illegible]

9. ATTITUDES TO TRAINING

(a) We would like to know what people's attitudes are towards the role of training in the Civil Service and about the C.A.S. course as it was when they attended it. The way we have decided to do this is to present you with a list of statements made by different people about these subjects, and ask you to indicate how strongly you agree or disagree with each of them. Although it may be difficult for you to express an opinion about some of the more generalised statements, it would be of great help to us if you would indicate broadly where you stand in relation to all of them. From the total expression of opinion about different sets of these statements we can assess the more general attitudes that lie behind them. This will be impossible if any of the statements are missed. (There is space at the end of the questionnaire for you to amplify your views.)

PLEASE INDICATE YOUR OPINION ABOUT EACH STATEMENT IN THE FOLLOWING WAY:

- If you STRONGLY AGREE ring 5.
 If you AGREE ON THE WHOLE ring 4.
 If you have no opinion or can't decide either way ring 3.
 If you DISAGREE ON THE WHOLE ring 2.
 If you STRONGLY DISAGREE ring 1.

Statement	Opinion (RING ONE ONLY)				
	Strongly agree	Agree on the whole	No opinion either way or can't decide	Disagree on the whole	Strongly disagree
1. The C.A.S. course would have been more effective if it had been run on a residential basis	5	4	3	2	1
2. An administrator learns more from his own experience and that of his colleagues than he can ever be taught in a training course*	5	4	3	2	1
3. The C.A.S. course was too long	5	4	3	2	1
4. The subjects and techniques people are taught on management training courses are rarely applicable to their work*	5	4	3	2	1
5. Enthusiasm for applying new management techniques in the Civil Service is largely restricted to those who have been trained in them*	5	4	3	2	1

(COURSE MEMBERS AND CONTROL GROUP*)

Statement	Opinion (RING ONE ONLY)				
	Strongly agree	Agree on the whole	No opinion either way or can't decide	Disagree on the whole	Strongly disagree
6. The C.A.S. course should be given earlier in a civil servant's career than the third year of service	5	4	3	2	1
7. It will be a very long time before the value of management techniques is accepted in all areas and at all levels of the Civil Service*	5	4	3	2	1
8. All administrative civil servants require specialist training if they are to do their work efficiently*	5	4	3	2	1
9. There is a receptiveness to new management techniques in the Civil Service which it would be hard to find elsewhere*	5	4	3	2	1
10. The time spent on the C.A.S. course would have been better spent in my department	5	4	3	2	1
11. There should be refresher courses for administrators to bring them up to date in subjects that have been developed since their C.A.S. course	5	4	3	2	1
12. Expertise in British politics is more important for the administrative civil servant than proficiency in management techniques*	5	4	3	2	1
13. The C.A.S. course should be given later in a civil servant's career than the third year of service	5	4	3	2	1
14. It is the junior administrators who have the most enthusiasm for applying new management techniques*	5	4	3	2	1

(COURSE MEMBERS AND CONTROL GROUP*)

Statement	Opinion (RING ONE ONLY)				
	Strongly agree	Agree on the whole	No opinion either way or can't decide	Disagree on the whole	Strongly disagree
15. The C.A.S. course is more interesting than valuable in the Civil Service as the Civil Service is at present	5	4	3	2	1
16. The administrative expertise of many top rank civil servants could rarely be matched in Industry and Commerce*	5	4	3	2	1
17. The ability to get on well with other people is the most important quality of the good administrator*	5	4	3	2	1
18. Greater use should be made in the Civil Service of outside training facilities*	5	4	3	2	1
19. There should be additional courses in management for those in their 30's and 40's moving into senior administrative positions*	5	4	3	2	1
20. Some of my colleagues among those who did not receive C.A.S. training would have greatly benefited from it	5	4	3	2	1
21. The same personal qualities are required of the man at the top, whether he is running an industrial organisation, a bank or a ministry	5	4	3	2	1
22. C.A.S. training should be geared to the needs of a particular department rather than to the Civil Service as a whole, as it was when I received it	5	4	3	2	1
23. The tasks of the Civil Service of the future will demand that the administrators have much greater specialised knowledge of management techniques*	5	4	3	2	1

(COURSE MEMBERS ONLY)

- 9(b) Are there any other comments you would like to make about the C.A.S. course as you know it or on Civil Service training in general?
(WRITE IN BELOW)

(CONTROL GROUP ONLY)

- (b) Are there any other comments you would like to make about Civil Service Training?
(WRITE IN BELOW)

APPENDIX D

QUESTIONNAIRES

(SUPERIOR OFFICERS)

Q3/S458

Serial Number _____

AN ENQUIRY CARRIED OUT BY THE GOVERNMENT SOCIAL SURVEY
FOR THE CIVIL SERVICE DEPARTMENT

GOVERNMENT SOCIAL SURVEY DEPARTMENT
ATLANTIC HOUSE RH 44
HOLBORN VIADUCT
LONDON E.C.1.

01-405 1705 Ext.31

SOME POINTS TO REMEMBER
WHEN YOU FILL IN THIS QUESTIONNAIRE

So that your answers are in a form which will enable us to process them quickly, please bear the following points in mind when completing the questionnaire.

1. Please read carefully each individual question and its instructions to determine exactly what is required before you attempt to answer it.
2. Ensure that any figures you have to insert are clear and easy to read.
3. Where you have to put a ring round a number in answer to a question, see that your ring circles ONLY the number relating to your answer.
4. Where you are asked to place your answer inside a box, please ensure that the answer is actually inside it.
5. If you do not know the answer to a particular question or are unsure of your opinions always ring the code number indicating 'don't know' or 'no opinion', or if no such code is given write in your response. PLEASE DO NOT LEAVE ANY QUESTION UNANSWERED.

(SUPERIOR OFFICERS)

1. CLASSIFICATION DETAILS

YOUR PRESENT (PERMANENT) GRADE					
Under secretary	1				
Assistant secretary	2				
Principal	3				
Other grade	4				
(WRITE IN BELOW)					
LENGTH OF TIME FOR WHICH YOU HAVE BEEN THE COURSE MEMBER'S SUPERIOR OFFICER.					
	Years Months				
WRITE IN HERE —————>	<table border="1"><tr><td> </td></tr><tr><td> </td></tr><tr><td> </td></tr><tr><td> </td></tr></table>				

(SUPERIOR OFFICERS)

2. THE C.A.S. COURSE SUBJECT MATTER

In the table below a list of topics taught on the C.A.S. course for Assistant Principals is shown. From your knowledge of the duties and responsibilities the course member has had to undertake (during the time you have been his superior officer) would you please indicate how useful you think knowledge of each of these topics has been to him.

USEFULNESS SHOULD BE INTERPRETED TO MEAN THE EXTENT TO WHICH KNOWLEDGE OF THE TOPIC IS DIRECTLY APPLICABLE IN THE COURSE MEMBER'S WORK. TO INDICATE HOW USEFUL KNOWLEDGE OF EACH TOPIC HAS BEEN TO THE COURSE MEMBER RING THE NUMBER BELOW THE CATEGORY OF USEFULNESS YOU SELECT IN EACH CASE. IF YOU HAVE LITTLE OR NO DETAILED KNOWLEDGE OF ANY PARTICULAR TOPIC PLEASE RING 'X' ON THE RIGHT HAND SIDE OF THE TABLE.

C.A.S. course topic	Usefulness of topic to course member (RING ONE CATEGORY ONLY ON EACH LINE)					
	Of very great use	Of great use	Of some use	Of hardly any use	Of no use	Little or no detailed knowledge of this topic
<u>MICRO-ECONOMICS</u>						
1) Relative scarcity and opportunity cost	5	4	3	2	1	X
2) Market analysis of supply and demand	5	4	3	2	1	X
3) Elasticity of demand and supply	5	4	3	2	1	X
4) Public utility pricing	5	4	3	2	1	X
5) Cost benefit analysis	5	4	3	2	1	X
6) Investment appraisal	5	4	3	2	1	X
<u>MACRO-ECONOMICS</u>						
7) National income accounts	5	4	3	2	1	X
8) The basic Keynesian model of the economy	5	4	3	2	1	X
9) Forward economic projections	5	4	3	2	1	X

(SUPERIOR OFFICERS)

C.A.S. course topic	Usefulness of topic to course member (RING ONE CATEGORY ONLY ON EACH LINE)					
	Of very great use	Of great use	Of some use	Of hardly any use	Of no use	Little or no detailed knowledge of this topic
10) Determinants of economic growth	5	4	3	2	1	X
11) Balance of payments	5	4	3	2	1	X
12) International monetary problems	5	4	3	2	1	X
13) Aid to developing countries	5	4	3	2	1	X
<u>STATISTICS</u>						
14) Frequency distributions	5	4	3	2	1	X
15) Index numbers	5	4	3	2	1	X
16) Time series	5	4	3	2	1	X
17) Correlation	5	4	3	2	1	X
<u>ADMINISTRATIVE TECHNIQUES</u>						
18) Linear programming	5	4	3	2	1	X
19) Network analysis (P.E.R.T.)	5	4	3	2	1	X
20) Use of computers	5	4	3	2	1	X
<u>INDUSTRY</u>						
21) Industrial structure of the U.K.	5	4	3	2	1	X
22) Interpretation of company accounts	5	4	3	2	1	X
23) Functional operations of industry	5	4	3	2	1	X

(SUPERIOR OFFICERS)

3. THE C.A.S. COURSE OBJECTIVES

In the table below the principal objectives of the C.A.S. course for Assistant Principals as run from 1963-1968 are set out. On the basis of your experience of people who have received this training, please indicate:

- (a) whether you think each of these objectives has been completely achieved by the course.
- (b) in what respects you think the C.A.S. course has failed to achieve any of its objectives.

C.A.S. course objective	(a) Whether C.A.S. course has completely achieved objective. (RING ONE CATEGORY)			(b) If no: (1) at (a) In what respects has the C.A.S. course failed to meet the objective?
	Yes	No	Uncertain	
1. To introduce the main branches of economic theory and policy	3	1	2	
2. To familiarise administrators with the quantitative methods used in economic and statistical analysis	3	1	2	
3. To improve knowledge of operations of the public sector	3	1	2	
4. To improve knowledge of the structure and operations of business and industry	3	1	2	
5. Generally through the above objectives to improve communications between administrators and businessmen and specialists within the service	3	1	2	

(SUPERIOR OFFICERS)

3. (c) Are there any other comments you would like to make about the C.A.S. course for Assistant Principals?

(WRITE IN BELOW)

